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AAA In Korea
Airborne AAA
G.I. Insurance
Red Terror



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BRONZE STAR MEDAL AWARDS

3rd AAA AW Bn (SP)

SFC George H. Warren

10th AAA Group

Capt. Clarence A. Meyer
Capt. William F. Rawcliffe
2d Lt. Herman C. Schultz
Cpl. Robert L. Hand
Cpl. James H. Stinnett
Pvt. James M. Mumagh

15th AAA AW Bn (SP)

Maj. James N. Hickok
Capt. Ransome B. Cribbage
Capt. Charles F. Forber
Capt. (Chap.) J. H. Fiser
Capt. James H. Hogan
Capt. Earl C. Ireland
Capt. James R. McClymont
Capt. Ray J. McManus
Capt. Arthur M. Meranski
Capt. Ronald D. Maton
Capt. Gilbert B. Sage, Jr.
Capt. James W. Shafer (1-OLC)
Capt. Thomas G. Taft
Capt. Walter Wartanick
Capt. Alvin D. White, Jr.
1st Lt. Donald E. Harkins
1st Lt. Thomas A. Holt
1st Lt. Phillip H. Stevens
CWO James H. Dowdy
SFC Edwin V. Donnellan
SFC Dallas B. Ours
SFC Carl R. Portwood
Sgt. Jay L. Beck
Sgt. Richard A. Fasing
Sgt. Charles W. Nicodemus
Sgt. Robert C. Turner
Cpl. Paul J. Black, Jr.
Cpl. Richard M. Evans

21st AAA AW Bn (SP)

1st Lt. Byron L. Stevens
1st Lt. Kenneth E. Troxell
M Sgt. Zaragosa Maciel
SFC Emanuel Heinze
SFC Victor J. King
SFC Paul L. McRoberts
SFC Bridge F. Ragland
Sgt. Raymond R. Arcand
Sgt. Corey L. Clayson
Sgt. George Gillis
Sgt. Nobuta Oda
Sgt. Colvin W. Thomas
Cpl. John J. Chesser

Cpl. John W. Cole, Jr.
Cpl. Cyril F. Scott
Cpl. Richard A. Scott
Cpl. Sterling D. Tackett
Cpl. Joe Whitehurst
Pfc. Richard D. Brown
Pvt. Ray W. Willis

50th AAA AW Bn (SP)

Maj. Stanley J. Paciorek
Capt. Leland R. Downing
Capt. Edward L. Rose (1-OLC)
Capt. Joseph B. Rothwell
Capt. Robert T. Stavek
Capt. William W. Winters
Capt. Kermit D. Woolridge
CWO Leland J. Crabbe
M Sgt. Donald L. Branscum
M Sgt. Francisco A. Olivieri
M Sgt. William E. Ray
SFC James A. Couillard
SFC Billy A. Curley
SFC Virgil A. Justice
SFC Emile P. Ordayne
Sgt. Thomas F. Bunkley
Sgt. Carl H. MacDermott
Sgt. Joe E. Marshall (1-OLC)
Cpl. Jack R. McConnell
Pfc. Charles K. Horst, Jr.

68th AAA Gun Bn

Lt. Col. Raymond C. Cheal
Maj. Francis X. Gallant
Capt. Richard G. Fazakerly
Capt. Edgar H. Stephenson
1st Lt. Lyle R. Larson
1st Lt. Fred E. Renaud
1st Lt. Alexander Schackelford
M Sgt. Leo J. Hannibal
M Sgt. Salem F. Jones
SFC Malcolm Cooper
SFC Martin Nubuer
SFC Robert Patton
Sgt. Robert E. McLendon
Sgt. Robert L. Nath
Pfc. Robert G. Linnane
Pvt. Robert O. Guinn

78th AAA Gun Bn (90mm)

Lt. Col. Thomas W. Ackert (2-OLC)
Maj. Walter T. Ride, Jr.
Capt. (Chap.) Ray L. Allen
Capt. Michael J. Malone (1-OLC)
Capt. Howard W. Pierson (1-OLC)
Capt. David H. Robertson (1-OLC)

Capt. Bill S. Yamaki
M Sgt. Elmer D. Weppner
SFC Walter H. Bailey
Sgt. Joseph Brown
Sgt. Robert E. Yount
Cpl. Luis M. Colomo
Cpl. James R. Graham
Cpl. Alfredo Solis
Cpl. Walter C. West
Pfc. J. C. D. Grammer
Pfc. John H. Morey
Pfc. William T. Redden
Pfc. Robert R. Roark
Pfc. Clifton F. Spencer
Pfc. Carlton D. Tinker
Pfc. Melvin Vanover
Pfc. William E. Webb
Pvt. Willard E. Alphin
Pvt. Gerald A. Pfliegarr

82nd AAA AW Bn (SP)

Lt. Col. Walter Killifoe (1-OLC)
Maj. K. L. Bouillion (1-OLC)
Maj. Edgar L. Casey (1-OLC)
Maj. Jeffery Lavell
Maj. Jack C. Maldonado (1-OLC)
Maj. Stephen T. Utama
Maj. Joseph C. Whitehead
Capt. Joseph Errigo (1-OLC)
1st Lt. Gilbert X. Cheves (V)
1st Lt. Paul G. McCoy (V)
1st Lt. James W. Root
1st Lt. John Schmutz (Posthumously)
1st Lt. Wilbur R. Webster (V)
1st Lt. James W. Wilson
2d Lt. G. M. Hair
M Sgt. Joseph Dutra
M Sgt. John F. Sullivan
SFC B. E. Carroll
SFC John E. Evans (1-OLC)
SFC E. Fernandez
SFC J. D. Maddix
SFC William E. Moran
SFC Richard W. Ragnrud
SFC George A. Santoy
SFC Nick N. Schelbrack (V)
SFC Eugene J. Sheehan
SFC Robert E. Stone
Sgt. Amato T. Barreda
Sgt. Harold D. Corbello
Sgt. Obrin Freeman
Sgt. Gerald D. Gordon
Sgt. Denver Greer
Sgt. Kenneth N. Hack
Sgt. John A. Norgren

Sgt. W. E. O'Brien
Sgt. Ezekiel Owens
Sgt. James M. Westbrook
Sgt. James M. Willard
Cpl. Milton H. Baumgardner
Cpl. Lawrence E. Brailsford
Cpl. Fidel Cortinas (1-OLC)
Cpl. G. C. Crigler
Cpl. Paul Cumpston
Cpl. Walter D. Emmons
Cpl. Robert Fryer
Cpl. Joseph D. Geraci
Cpl. Blaine E. Harmon (V)
Cpl. Robert LeGraft
Cpl. John E. MacMahon
Cpl. Arthur G. Peters
Pfc. Herman L. Aycoth
Pfc. Joseph Bellamy
Pfc. John R. Brown (V)
Pfc. James Cahall (V)
Pfc. Irvin W. Connett (V)
Pfc. Marshall W. Dunn, Jr.
Pfc. Richard M. Easland
Pfc. Fernando Fuentes, Jr.
Pfc. William J. Heam
Pfc. William J. Hearne (V)
Pfc. Fred Helfferding (V)
Pfc. Horace L. Hunt
Pfc. Delton E. Johnson
Pfc. Jose Lopez
Pfc. Hollis W. Neeley
Pfc. Eugenio Pedroza
Pfc. Edwin M. Tomeczka
Pfc. Robert A. Webb, Jr.
Pfc. Edgar L. Weems
Pfc. Johnie Whitmire
Pfc. Orval L. Willis
Pvt. Walter L. Beat
Pvt. James C. Chaney
Pvt. M. L. Moore
Pvt. Robert F. Morris

865th AAA AW Bn (SP)

SFC William S. Hasse
Sgt. Harold D. Allen
Sgt. Burley T. Blankenship
Cpl. Donald E. Gentzler
Cpl. Kenneth W. Shields
Cpl. Richard J. Vertz
Pvt. Herbert L. Bumgarner
Pvt. Frank A. Pierce
Pvt. Lawrence E. Rogers

933rd AAA AW Bn (SP)

M Sgt. James A. Henderson

SOLDIER'S MEDALS

3rd AAA AW Bn (SP)

2d Lt. Billy C. Tubbsville
Pfc. Daniel L. Goode

15th AAA AW Bn (SP)

SFC Paul J. Tate
Cpl. Avelino R. Barrows
Cpl. Burton C. Caswell, Jr.

68th AAA Gun Bn

Sgt. Harry C. White

78th AAA Gun Bn (90mm)

M Sgt. Paul M. Hall

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The JOURNAL prints articles on subjects of professional and general interest to personnel of the Anti-aircraft Artillery in order to stimulate thought and provoke discussion. However, opinions expressed and conclusions drawn in articles are in no sense official. They do not reflect the opinions or conclusions of any official or branch of the Department of the Army.

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ANTIAIRCRAFT ARTILLERY

By Major General

FIFT

FOLLOWING another visit to the battling antiaircraft artillery troop units in Korea your correspondent reports:

The organic antiaircraft artillery has completely sold itself to all fighting forces and to commanders of all ranks. In combat, infantry demands "flak wagon" elements for its offensive and defensive activities; artillery requires antiaircraft artillery units integrated into its devastating concentrations and uses the ack ack precision fire on every possible occasion; armor employs the track and half-track weapons as SOP in its various forms of effective operations; all headquarters and service installations have complete confidence in the antiaircraft capabilities in perimeter defense situations.

As a result of this, the tempo of activity is speeded up for those organizations

assigned to the ground combat arms. Hot spots are everyday occurrences and demonstrations of outstanding bravery are found in all outfits.

Intensified action has demonstrated the need for improvement in the defensive armor and, with the assistance of efficient field ordnance units, most batteries are equipping their weapons with protective shields. These are proving highly effective and several splendid designs have been developed by the commanders concerned.

Many combat decorations are being awarded by the higher commanders who welcome the sharpshooting antiaircraft artillerymen as members of the battle family of the U. S. Armed Services.

The Air Defense antiaircraft artillery units are alerted and ready for the

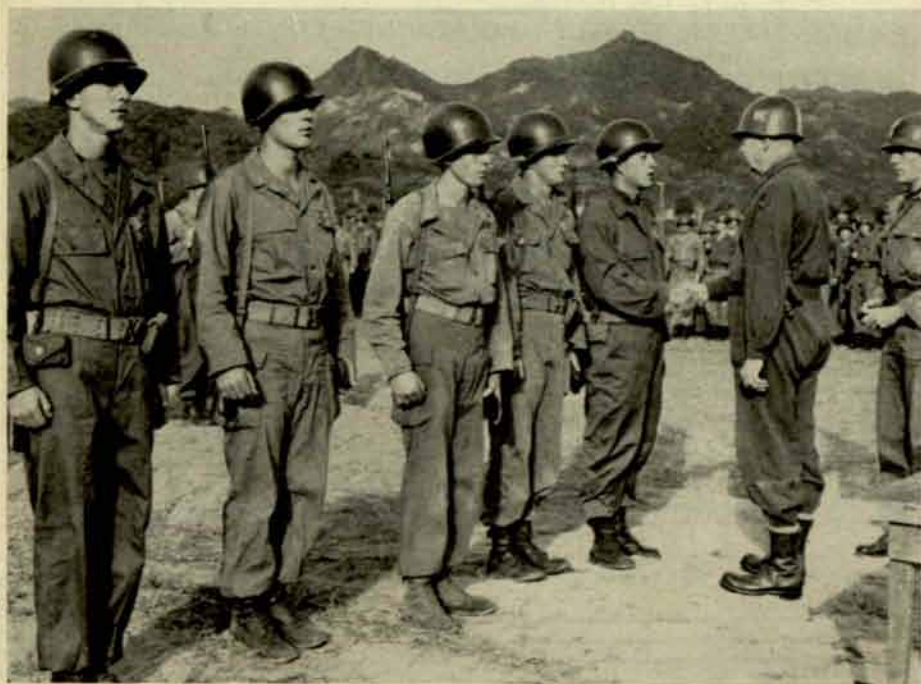
threatened outbreak of any hostile air offensive. They are determined to make up in accuracy for the absence of fire volume caused by the shortage of sufficient units to do the job according to doctrine.

Of course the weather plays its usual role in the drama of battle. Right now it varies between blinding dust and inundating rain. The wet season arrived early this year and brought its usual problems of keeping equipment from skidding off the roads; preventing emplacements from washing away with consequent exposure of matériel and personnel; maintaining communications in operation and, above all, making the pup tent a most unsatisfactory temporary abode.

Infantry, armor, artillery and service units each have their particular problems in combating weather but all overcome the handicaps without complaint. You can't beat an army like that; and the United Nations Force under Lt. General James A. Van Fleet is taking a tremendous toll of the enemy.

Although the enemy is subject to the same physical handicaps from the weather, the rain and lack of visibility provide him with the so-called twenty-four hour nightfall during which he can move his forces without exposing them to the murderous attacks of the UN Air. But it has to clear up some time and when it does our forces wipe out the enemy gains promptly and continue their own advances.

Morale is remarkable. Good food, mail as promptly as conditions permit, incessant efforts of the chaplains; organized Army morale programs; radio programs and many other influences serve the purpose of keeping up the spirits of the fight-



Brig. Gen. Loyal M. Haynes with Lt. Col. Killilae decorate five men of the 82nd AAA AW Bn. (SP) with Bronze Stars.

TILLERY IN KOREA

William F. Marquat

REPORT

ing troops. The American sense of humor is always prevalent. In Korea the safety campaign includes signs everywhere reading:

"Drive carefully—the life you save may be that of your replacement."

The prospects of R and R (Rest and Relaxation) and of rotation to the U. S. in a priority based upon length of service in Korea are morale inspiring, and

there is no complaining over the fact that a man may have to wait some time to enjoy either of these privileges. The mere fact that the opportunities exist and that someone is benefiting by them is enough for the American GI. Another first class morale agency is the power driven bath unit. These outfits line most of the streams and certainly do a rush business, especially among men just re-

lieved from front line duty.

In my travels around the combat areas, I found the typical reluctance to discuss outstanding performances. The "all in a day's work" attitude predominated. And when you can entice a man into a discussion of a special event, it is always his buddy who is accorded the major role in the drama being presented. But there were plenty of them.

KOREAN COMMENDATION—Scroll awarded to the 78th AAA Gun Battalion, Lt. Col. Thomas W. Ackert, commanding, by Major General Chung Ill Kwon, Commander in Chief of the Republic of Korea Armed Forces, in commendation of the battalion's support of the ROK 1st Infantry Division in combat against North Korean and Chinese Communist forces. The citation refers specifically to action in the Battle of Taegu, September 16, 1950, and at Unsan, 1 to 26 of November 1950.



감사장

미국제1군사포탄제조소장에게

단기삼십팔년(1950년)十一月一日(1950년 11월 1일) 미명북한공산괴뢰군의 불법남침 이래 유엔군의 일부대로서 대한민국 국군을 원조한 데 대하여 귀대에게 감사하는 것을 무한한 영광으로 생각하는 바입니다. 귀대는 단기삼십팔년(1950년)十一月一日(1950년 11월 1일) 대구지구 전투에 있어서 대한민국군 보병제1사단을 지원할 사명을 띠고 그 지원 임무를 성공리에 완수하였을 뿐만 아니라 긴밀한 연락과 협동하여 제회적인 반격으로서 적군을 격퇴하였습니다. 또한 단기삼십팔년(1950년)十一月一日(1950년 11월 1일)부터 동월二十六일(1950년 11월 26일) 사이의 운산지구 전투에 있어서는 압도적으로 우세한 병력의 중공군이 유엔군을 공격하여 왔으나 능숙하고도 또 기술적인 귀대의 지원 사격으로서 적의 기도를 좌절시키는 동시에 보병제1사단이 이 위험지대로부터 철수를 성공하는 데 크다란 도움이 되었습니다. 귀대의 장병이 발휘한 인내성과 용감성은 우리 장병에게 큰 감동을 주었으며 그 격려한 공훈과 훌륭한 행동은 대한민국과 국군의 청사에 길이 빛날 것입니다.

단기삼십팔년(1950년)二月五일

대한민국 육해공군 총사령관

육군 소장

정인



FOR example, the Third Division, Major General Robert H. Soule, commanding, and Brig. General R. P. Shugg, Divarty Commanding General, was shifting from one front to another in a terrific rain. Shugg was extremely enthusiastic about the performance of his organic AAA, the 3rd AAA AW Battalion (SP), Lieut. Colonel Charles W. Stewart, commanding. Major R. B. Hay, executive officer, said there had been plenty of outstanding action and cited two incidents in which the first and second platoons of Battery A were engaged.

At 0800 27 May 1951, elements of the First Platoon, Battery A, 3rd AAA AW Battalion (SP) were in direct support of the 7th Infantry Regiment which was attacking Hill 856. 1st Lieut. Norman Semon was platoon commander with 2nd Lieut. J. Kinman second in command. There were two M16s, three M19s and one M39 personnel carrier in the antiaircraft complement of the combat force. The action lasted five hours during which time the antiaircraft units were credited with killing 125 enemy; wounding at least that many; destroying



Members of the 15th AAA AW Bn. set up defense positions.

two enemy machine guns, one trench mortar and one bunker containing a machine gun nest; and neutralizing a hostile outpost. The M19 personnel carrier was prominent in this action, moving about under terrific fire, removing wounded, distributing ammunition and otherwise making itself conspicuous during the activity.

Master Sgt. J. Farrell distinguished himself in this action by personally directing the activities of the M39 vehicle. Sergeants J. Downing, W. George and A. Fields were the section leaders, and squad leaders Sergeants R. Cox, F. McGunnigle and S. Alderson and Corporals C. Bennett and J. Bloom were outstanding.

The coordination between the infantry and antiaircraft was near perfection. The infantry called for fire over the SCR 300 radio sets or by marking a target by smoke grenades and tracer fire. The M19's of this battery are equipped with mil scales and the fire adjustment is conducted according to field artillery methods.

General Shugg said that preliminary indications of enemy in this area were difficult to obtain because the hostile forces were elusive and could not be located by the reconnaissance patrols which branded the reports of hostile troop presence as rumors. "We found a new way to spike rumors," the General said.

On the 23rd of May at 0900 hours, elements of the Second Platoon of Battery A were in direct support of the Sec-

ond Battalion of the 7th Infantry Regiment. Capt. Richard P. DeWitt, commanding Battery A, was in the CP of the infantry battalion when hostile fire was opened in considerable volume by enemy who had infiltrated the position. Within five minutes one M16 and one M19 under command of 2nd Lieut. P. H. Felder were in action. Thirty minutes later the situation was cleared up. One enemy prisoner was taken who stated that he was the sole survivor of a group of fifty hostile soldiers who had taken up positions under cover of darkness with the mission of wiping out the infantry CP. No damage was done to personnel or equipment at the CP due to prompt and effective action spearheaded by friendly antiaircraft units.

During one single march of the division, the elements of the 3rd AAA AW Battalion were engaged on 62 occasions; fired 5,618 rounds of 40mm ammunition and 29,144 rounds of caliber .50 ammunition; destroyed or neutralized nine machine gun emplacements, two trench mortars, one 45mm antitank gun, two boats, five trucks and killed 238 enemy soldiers.

ON one occasion an enemy command post was located in a concrete tunnel on the opposite side of a river. Howitzers and aerial bombardment failed to penetrate the tunnel entrance. One section of Battery D moved to a favorable position within 2,500 yards of this target. After a few minutes of fire the command

Distinguished Service Cross

SERGEANT HAROLD P. HAUGLAND, a member of Battery D, 15th AAA AW Bn. (SP), 7th Infantry Division, distinguished himself by extraordinary heroism in action against an armed enemy near Chosin Reservoir, Korea on 29 and 30 November 1950. On these dates the battery to which Sergeant Haugland was assigned was providing ground defense for field artillery elements, and his M-19 (twin 40mm guns) was covering one sector of the perimeter defense. The enemy made numerous heavy attacks against his weapon on 29 November, and by exposing himself voluntarily to intense fire, he was able to direct the fire of his guns to the most vulnerable points with speed and efficiency. As a result of his selfless exposure to enemy fire, he was seriously wounded in one foot and was carried to the aid station. Early on the morning of 30 November, the enemy renewed the attack against the perimeter. Sergeant Haugland, with complete disregard for his own welfare and safety, wrapped his wounded foot in cloths and using an empty ration box for a shoe, made his way under enemy fire from the aid station to his M-19 where he resumed command and continued to expose himself to enemy fire while commanding the weapon. During this action an enemy mortar set fire to the ammunition trailer. In order to direct the driver of the M-19 to an alternate position, Sergeant Haugland, with great valor, in the midst of exploding 40mm high explosive shells, coolly walked in front of the vehicle and guided the driver of the gun carriage. As a direct result of his outstanding devotion to duty, his fearless leadership, and his exemplary heroism, Sergeant Haugland's M-19 prevented penetration of the perimeter and killed scores of the enemy. His display of extraordinary heroism on this occasion reflects great credit on himself and the military service.

Citation For The Legion Of Merit

Lieutenant Colonel Clifton E. Singleton, Artillery, distinguished himself by exceptionally meritorious service as Post Commander, Camp Mower, Japan Logistical Command, from 30 June to 2 November 1950. Following the onset of hostilities in Korea, Colonel Singleton converted his post into a staging area and port capable of processing large units for shipment to Korea and, aided by a staff of only six officers and less than a hundred enlisted men, prepared the 34th Infantry Regiment for movement to the battle zone within twelve hours. He provided complete facilities for staging, feeding and embarking the majority of the remaining elements of the 24th Infantry Division in less than ten days and later processed the 25th Infantry Division and many other combat units. Colonel Singleton was instrumental in organizing and activating a replacement battalion and a port company and constantly worked in close liaison with Navy, Air Force, Marine Corps and Japanese officials. Through his diplomatic approach and sincere cooperation, he enhanced the prestige of the United States Army among all other services with whom he came in contact. Colonel Singleton's demonstrated zeal, initiative, resourcefulness and tireless devotion to duty reflect great credit on himself and the military service.

post was destroyed. One of the 40mm rounds entered the tunnel opening and destroyed an ammunition dump with the CP. Less than 200 rounds of 40mm ammunition and around 3,000 rounds of caliber .50 were used in accomplishing this mission.

In the first week of June 1951 the 3rd AAA AW Battalion (SP) continued its support missions, expending 6,000 rounds of 40mm ammunition and 36,000 rounds of caliber .50 ammunition. During this period alone 449 enemy were killed in action and 17 machine guns, three OP's and one mortar position put out of action.

Major General Charles D. Palmer, commanding the fighting First Cavalry Division, lauded the performance of its AA troops. SFC Charles W. Murphy and Sgt. Lara P. Hicks are the latest recipients of Silver Star citations. Numerous other decorations have been awarded also.

Lieutenant General Frank W. Milburn's I Corps has been heavily engaged for some time in throwing back the Communist forces in Korea, and the 25th Division, commanded by Brig. Gen. Joseph S. Bradley, was fighting in a teeming rain during the two days I visited it. The Commanding General, his deputy, Brig. Gen. W. L. Mitchell, and his divarty commander, Brig. Gen. George B. Barth, all displayed a deep

interest in the activities of the 21st AAA AW Battalion (SP), commanded by Lieut. Col. C. E. Henry, who was recently promoted to his present grade. General Barth has since departed from the division after serving in Korea since the start of the war.

General Barth said that the antiaircraft artillery had long been accepted as a

member of the "Lightning Division" family and many of the units carried "Quad Lightning," "Chain Lightning" and similar designations on their equipment. Many of the artillery units use typical wolfhound characteristics in their names such as the "Wolfhound Bark," "Wolfhound Howl," and such epithets. The following letter from General

Hq. 25th Div. Arty
Korea
3 June 1951

Major General W. F. Marquat
Antiaircraft Officer
AAO GHQ FEC APO 500

Dear General:

Today I leave my 25th Division Artillery and come out of Korea. Knowing your interest in the performance of Antiaircraft units in action I wanted to pay a tribute to the 21st AAA Battalion and Battery A, 25 AAA Battalion for their outstanding record while serving under my command.

Battery A, 25 AAA Battalion first saw action near Masan where its quad .50's were instrumental in repelling fanatical attacks against the guns of the 25th Div. Arty. On September 6th two of its M16's pinned down the enemy in the rice paddies fifty yards in front of the guns of Battery C 64th F. A. allowing the gun crews time to man defensive position and fight as infantry. One of the AAA gun commanders died at his post that morning and three crew members were wounded.

Late in January the 21st AAA Battalion (less Battery A) joined us just as the advance from Osan to the Han River was starting. Its three batteries were ordered forward with the infantry regiments. This mission was to employ their guns as a base of fire for the attacking infantry. The high silhouette and lack of protective armor of the M16's made this an extremely hazardous job for the crews of the tracks. They went in without protest and have been in there pitching ever since. In their first fight they suffered thirty battle casualties and one whole crew was knocked out by enemy mortar fire. At Yongdong-po one quad .50 was credited with killing or wounding every man of an enemy thirty man patrol. Four of the crew were wounded in this action.

At the crossing of the Han River on March 7, forty-eight M16's lined up along the river bank in exposed positions supported the waves of assault boats with a murderous sheet of fire—the 27th Infantry crossed without the loss of a man and the casualties of the 35th and 24th Infantry were very light.

As time went on all three infantry regiments learned to depend on the fire power of the quads and were high in their praise of the courage displayed by the crews. A number of AAA men were awarded decorations for heroism; most of the awards being put in by the supported infantry commanders. Quad .50's accompanied the numerous tank-infantry task forces employed in the advance between January 25th and April 22nd. The guns proved invaluable in silencing enemy fire from the hills along the route of the task forces.

During our retreat from April 22-29, the M16's did fine work as part of the rear guard and their fire power did much to assist the 35th Infantry in fighting off attacks behind its lines and reducing road blocks thrown behind it. On the final defense line north of Seoul the quads were dug in along the M.L.R. covering the tactical wire with interlocking bands of fire. The position was too strong to be attacked there but we were ready.

Finally through the efforts of the Battalion Commander, Lt. Col. Henry, armor plate shields were provided for the quads and Flak vests for the crews, reducing the casualties considerably.

Throughout their many serious engagements the morale of the AAA men was extremely high. In no case did they fail the infantry and their courage and performance of a duty far more hazardous than would normally be expected of such a unit won the respect and admiration of all.

In closing I can say that I was proud of all my battalions—they gave month after month that fine support that allows the infantry to advance with minimum casualties—but the performance of my Antiaircraft units was so far above the call of duty that I will remember them with a feeling of everlasting pride.

Sincerely,
G. B. BARTH
Brig. Gen., U. S. A.
Commanding, 25th Div. Arty.

Barth indicates high praise for the anti-aircraft artillery organic with the 25th Division.

Major R. L. Cordes, Battalion Executive, was commanding during the temporary absence of Lt. Col. Henry. Major David C. Miss, S3, gave a vivid account of the battalion's actions during the recent weeks.

In discussing this battalion's combat record, General Barth stated that in its very first action, one platoon lost fifteen men because of their exposed positions on the weapons when ambushed by the enemy. The general thought it might make the men gun shy, but found an entirely different result. Instead of being too apprehensive the officers and men set out to correct the situation. The result—more special type armored shields. Capt. M. B. Kaminski of Battery B, 21st AAA AW Battalion (SP) was given a bronze star for proposing a shield design and a fine Ordnance sergeant was similarly decorated for making the pilot models.

BBATTERY B distinguished itself in the now famous Imjin River action. I went to the forward positions of this battery which was still supporting the 27th Infantry in its magnificent operations in the extremely wooded high hill

Silver Star

LIEUTENANT COLONEL WALTER KILLILAE, Commanding 82nd AAA AW Bn. (SP), 2nd Infantry Division, displayed gallantry in action against an armed enemy on 30 November 1950 in the vicinity of Kunu-ri, Korea. On that date he was a member of the command group of a division convoy which was attempting to penetrate a roadblock which had been established by the enemy to cut off the withdrawal of the division. The convoy was halted by intense hostile fire. Colonel Killilae immediately dismounted and proceeded on foot to investigate the delay. From an exposed position he directed the fire of an anti-aircraft firing vehicle against an enemy machine gun emplacement. The fire destroyed the enemy position and enabled the column to continue. When the column was once more halted he again dismounted and, under the intense hostile fire which was raking the road, moved to the halted vehicles. Here he calmly fired his individual weapon on an enemy machine gun position, encouraging others to do likewise, until the enemy weapon and crew were destroyed. During the movement through the blocked area he displayed complete disregard for his personal safety as he directed the removal of wrecked vehicles which were impeding the progress of the column. As a result of his courageous actions, the convoy successfully penetrated the roadblock with a minimum loss of personnel and matériel. x x x Pennsylvania.



Damaged by enemy action, this M19 of the 3rd AAA AW Bn. (SP) had one man wounded.

areas of the Central Korean Sector. Under Colonel Check, the regiment formed the backbone of an RCT which beat and baffled the enemy at all turns. And Check told me that his ack ack was always with him—his men insisted on having these automatic weapons at their side. The torrential rains kept a continuous stream of water dropping from men and weapons alike and the AAA units were on the alert awaiting instructions to support a patrol that was at the time less than 800 yards to the north of them. Other units were facing along with field artillery pieces to the west and southwest; that kind of action is characteristic of Korean fighting.

I managed to get one man at a time to discuss the Imjin River situation under a paulin where I could take notes. They didn't remain long, however, as they felt more natural at their pieces under the stress of the moment.

In the Imjin situation, Battery B was in its customary role in support of the 27th Infantry and as it came down a draw toward the river's edge a sudden burst of fire came from the village across the water and from two hills on either side of their route of advance. Lieut. Gronsky was commanding the platoon with the leading infantry elements and was wounded by the first volley from the hostile troops. Lieut. Popovics took command. SFC Strasser described the incident as follows:

"The firing was so intense that I could not hear the instructions com-

ing over the radio. I noticed that the right flank piece was hit in the turret and three men were wounded so I went over to get the men to the aid station. On the way I picked up a couple of infantrymen and then I went over to the lieutenant to get instructions on redistribution of the equipment. The situation was pretty hot at times."

His simple explanation neglected to mention, as his Silver Star citation indicated, that he had performed all the activities described above under intense hostile fire. He had to cross exposed areas swept by machine gun fire, which he did by dodging from one spot of meager cover to another and at other times merely falling flat to avoid the enemy bullets.

Sgt. A. D. Deason was a member of the crew of the flank piece which was immediately hit by the enemy. He picked up a caliber .30 machine gun from a wounded 27th Infantryman and set it up behind a disabled anti-aircraft vehicle. With remarkable composure he picked out enemy weapons that were taking heavy toll of our own troops and eliminated them one by one. He had to leave his weapon to seek more ammunition but returned and went back to work on the most dangerous targets.

Deason covered Sgt. Strasser's dashes over the open spaces by wiping out machine guns that opened on Strasser. Strasser says: "I never would have made it had it not been for Deason."



Gen. Barth and Gen. Marquat at 25th Division forward area.

In one of the hostile machine gun emplacements fired on by Deason, four Chinese Reds were found dead and five badly wounded.

Cpl. Walter Moyer was a driver in one of the track vehicles under heavy attack. Four men of the crew were wounded. Moyer climbed into the turret and, without an assistant gunner or loader, opened fire with devastating effect on the enemy. The Chinese Reds began to concentrate on his weapon but he kept on firing until some of his buddies dragged him out of the turret.

For extraordinary bravery during this action Lieut. Popovics, Lieut. Gronsky, Sgt. Schmidt, Sgt. Strasser, Sgt. Deason, Cpl. Frye, Cpl. Moyer, Cpl. Packard and Pfc Head were decorated.

C Battery, 21st AAA AW Battalion (SP), commanded by Capt. Jack Harry, was recommended by the Third Battalion, 27th Infantry, for a Presidential citation for outstanding performance in action during the Han River crossing. On this occasion the battery used 17 firing units to put down a rolling barrage in front of the crossing infantry troops, control being maintained thru the SCR 300 radio sets.

As I was taking notes on the above activities there came a call from a patrol which had been pinned down, and these combat veterans, eager for further action, disappeared in the heavy rain and haze around a road turn in a nearby ravine.

During the period when the UN troops cracked the Spring offensive of the Chinese Reds, the 21st AAA AW Battalion (SP) participated in 23 en-

gagements, fired 749,000 rounds of caliber .50 and 980 rounds of 37mm ammunition; killed 1,259 enemy, wounded many more and took 13 prisoners of war.

LIEUT. Gen. Edward M. Almond's X Corps played a major role in defeating the Communist major offensive in which Major General Clark Ruffner's 2nd Division distinguished itself. Lieut. Colonel Walter Killilae's 82nd AAA AW Battalion (SP) is the 2nd Division organic anti-aircraft artillery, a veteran outfit, having participated in some of the most critical actions of the Korean campaigns. Brig. General Thomas E. DeShazo is 2nd Division Artillery commander and Colonel G. M. Adams is executive. They state that infantry morale is boosted by the anti-aircraft and that the ack ack weapons have proved indispensable as a member of the infantry-armor-artillery team.

At the time of my visit Colonel Killilae was at Eighth Army Headquarters and Major F. Q. Werner, battalion executive, was in command temporarily. The AAA battalion commanders now participate in tactical planning, which was not always the case. This is another step of progress in establishing the automatic weapons fire power in combat support.

Lieut. K. W. Korens spoke of a five day action of the 2nd Platoon of Battery D, which he commanded. The action started from a road march while the platoon was attached to the 3rd Battalion of the 38th Infantry. The enemy attacked the leading tanks, and four M16 units were immediately moved forward to take out the opposition. One of the M16 weapons was knocked out but the others quickly shot out the hostile defensive position, killing 75 and wounding 185.

Immediately following this incident Lieut. Col. Haynes of the 3rd Battalion of the 38th Infantry called for preparation fire on a hill that had to be taken. Fifteen minutes of combined artillery and anti-aircraft fire did the trick. Twenty enemy dead were found on the hill as our infantry secured it along with around 100 wounded.

On one occasion the AAA units found themselves out in front of the infantry which had been stopped by terrific fire from the enemy entrenched on a hill. The anti-aircraft took the hostile positions under fire resulting in nine prisoners and ten killed. The AAA platoon had

five men wounded in the five days of action.

First Lieut. J. R. Kotch, commanding Battery A, 82nd AAA AW Battalion, states that his battery is equipped with a large number of protective shields. He reports an incident indicating the extreme value of these shields, in which a platoon under Lieut. F. J. Rowland was engaged. The unit was heavily engaged in support of the 38th Infantry during which the infantry had large numbers of wounded. Medical Corps men were pinned down while removing our wounded because one of the M16 quad caliber .50's covering the evacuation had a track shot away and went out of action as it became a target for heavy machine gun and light cannon fire. Observing the special dilemma, Pfc Loken returned to the disabled weapon in defiance of the hostile fire and resumed covering fire for the medics who brought out the wounded. Later Loken indicated many marks in the protective armor, but the shield provided complete protection.

THE 82nd AAA AW Battalion has been awarded 19 Silver Stars with three recommendations pending; 86 Bronze Stars with 23 recommendations pending and 7 Army Commendation Awards. The equipment replacement problem has been a serious one but is being remedied rapidly.

Master Sgt. Elmos T. Brown, a member of Battery D, distinguished himself

Silver Star

SERGEANT FIRST CLASS EVERETT M. BALLINGER, a member of Battery C, 82nd AAA AW Bn. (SP), 2nd Infantry Division, displayed gallantry in action against an armed enemy on 30 November 1950 near Kunu-ri, Korea. On the night of that date he was riding in a convoy which was attempting to break through an enemy roadblock that was approximately five miles in depth. As a leader of a section of anti-aircraft firing vehicles, Sergeant Ballinger successfully negotiated the roadblock, destroying several enemy machine gun positions and making it possible for other units to pass through the roadblock. Later that night he reentered the roadblock area, on two different occasions, despite continuous enemy fire, to clear the road of destroyed vehicles and silence enemy automatic weapons. Although he was wounded in this action he continued to direct the operation of his vehicles, and is credited with saving many lives and much valuable equipment. The gallantry and inspiring leadership displayed by Sergeant Ballinger on this occasion reflect great credit upon himself and the military service. x x x California.

by gallantry in action on 19 May, 1951 in the vicinity of Pungchon-ni, Korea. On this date he was in command of three AW combat weapons attached to the 3rd Battalion, 38th Regimental Combat Team of the 2nd Infantry Division. At about 0230 hours a numerically superior enemy force had launched a determined attack, preceded by a heavy artillery and mortar barrage, upon the 3rd Battalion's defense position. The vehicle firing positions were subjected constantly to this mortar barrage and when it appeared their positions might become untenable, Master Sgt. Brown dismounted from his vehicle and, though exposed to the enemy fire, directed the three vehicles into different firing positions from which they could accomplish their assigned support mission and prevent the loss of vehicles through enemy artillery and mortar fire. During the displacement the crew of one of the vehicles became casualties. Sgt. Brown formed a pickup crew for the weapon and commanded it until he assured himself the crew was proficient in operating the weapons. When the artillery and mortar barrage lifted, the enemy attacked in force. Sgt. Brown, exposing himself to enemy fire, coordinated the fire of his weapons by going from one vehicle to another, encouraging the crews and pointing out targets to them. His coolness under fire and intrepidity in the face of the enemy served as an inspiration to the members of his command. He was recommended for a decoration.

Silver Star

CORPORAL HAROLD F. MARTINELL, a member of Battery D, 15th AAA AW Bn. (SP), distinguished himself with heroism near the Chosin Reservoir in Korea, from 29 November 1950 to 2 December 1950. During this period, Corporal Martinell, who was a cook in the battery mess until it was lost on 28 November as result of enemy action, voluntarily disregarded his own personal safety to assist in bringing wounded personnel from their positions to the aid station. He also assisted in caring for the wounded after they had received first aid. On 30 November 1950 while assisting a wounded soldier to the aid station, Corporal Martinell was wounded in the leg by an enemy mortar shell fragment. Despite his own wound, he continued to expose himself in order to aid others until he was evacuated by air to be treated for his wound. As a result of his courageous and unselfish devotion to his comrades, many men were successfully evacuated from danger areas to the aid station, and his assistance measurably lightened the burden of medical personnel. His heroism during this period reflects great credit on himself and the military service. x x x State of Washington.

The 187th Regimental Combat Team, under command of Brig. General Frank S. Bowen, Jr., was one of the spearheads of the X Corps' defeat of the main effort of the Communist all-out offensive.

The Triple A Battery of the 187th RCT, commanded by Capt. L. D. Babb, with 1st Lieut. G. H. Lehmer as executive, is a most versatile organization that has won its way into the hearts of the jumpers whether the operation is an air drop action or a surface advance. It was hot and dusty when I visited this unit, then in hot pursuit of the enemy north of Inje. Rifle and machine gun firing continued on all sides as the infantry advanced steadily, delayed now and then, when it became necessary to reduce a hostile position from a nearby hill-top. The flak wagons were on call at all times and moved constantly to a blocked area where they mechanically took up their duties in support of the doughboys.

2nd Lieut. Lewis C. Huckaby, recipient of a battlefield promotion, was slightly wounded just before we arrived. The M16 commanded by Sgt. 1cl Joseph Perez was covering a river crossing but he managed to gather his crew for a photo.

THE Seventh Division, commanded by Major General Claude B. Ferenbaugh, has the 15th AAA AW Battalion (SP) as its organic unit with Lieut. Col. Seth L. Hudgins in command. Capt. Ransom B. Cabbage is executive and Captains Brown Ralston, Jr., Gilbert Sage, Arthur Meranski, Earl C. Ireland and Ronald Moton make up the remainder of the battalion staff. 2nd Lieut. Paul Tate also is an antiaircraftman who received a combat commission.

Lieut. Tate was operating his platoon in support of the 17th Infantry and had brought his outfit to a halt at the bottom of a hill. Shortly after its arrival members of the platoon discovered a Chinese hostile unit digging in a trench mortar on the top of the hill.

"It was the height of insolence," the lieutenant said, "and my platoon considered it an insult."

However, they permitted the enemy to complete his labor of installation and then they opened fire. The first round of 40mm ammunition knocked out the mortar and six more rounds accounted for five members of the hostile mortar crew.



Capt. Babb, Lt. Lehmer and Sgt 1cl Perez with Gen. Marquat and gun crew of the 187th AAA Btry.

Battery C of the 15th AAA AW Battalion distinguished itself as part of a task force based upon the 31st Infantry. The battery utilized its elements in leapfrog tactics to protect the flanks as the infantry advanced. On one occasion, after firing about fifteen minutes, the infantry counted 100 dead on the hill where the AAA had fired. Sgt. Keller led some units to support the infantry in an attack upon a very stubborn hill where, when the action was over, 125 enemy dead were located.

Major Burr J. Randall, commanding the 57th Field Artillery Battalion, uses AAA units with his field artillery whenever he can get them. He told of one occasion when he sent a quartermaster party to Whachon, but they were pinned down as they entered the town. They remained under cover and called on the radio for an M16 unit for a routine shoot-out of the enemy. It took about 15 minutes.

Major Randall spoke of a special type of teamwork developed between his organization and the 15th AAA AW Battalion. His 155mm howitzers had been shooting out hostile high angle fire artillery installations on reverse slopes of adjacent hills but the enemy had been scampering away leaving their weapons for destruction or capture. The major devised a special measure to get the crews, too. He sent two M16 units around the flanks of the next hill where they located an enemy mortar emplacement. As the 155's drove the hostile crews away from their weapons the AAA picked them off while attempting to escape. "It was a perfect solution," said Major Randall.

Capt. Sage told of Pfc Lucas, who was busily engaged in firing his M16 weapon, when an enemy shell exploded in the vicinity. A piece of metal struck Lucas in the mouth and took out two teeth. He spat out the fragment and teeth and continued firing his piece. "I



Btry. B 21st AAA AW Bn. (SP) designed the shield on half track. Capt. M. B. Kaminski, Sgts. Strasser, Deason and Cpl. Mayer.

wouldn't have stopped at all," Lucas reported, "but the piece of shell started burning my mouth."

On another occasion an M16 of Battery D, under the command of Sgt. Harley G. Hart, was providing covering fire for the 1st Battalion, 17th Infantry Regiment when Sgt. Hart went to an OP on a nearby hill to observe the effects of fire. Soon after his arrival he was wounded in the leg by enemy small arms fire, but continued to direct the fire until the objective was taken. His weapon fired 4,700 rounds of caliber .50 ammunition during the action. The infantry battalion commander gave high praise to Sgt. Hart and his crew for this action.

TURNING to the 24th Division, commanded by Major General Blackshear M. Bryan, Jr., Colonel Stu O'Malley is the new chief of staff. Lieut. Col. Roy A. Tate commands the 24th Division AAA. The remaining members of the 52nd AAA AW Battalion staff are Lt. Col. Arthur F. Hanson, Capt. Robert Broomfield, Capt. Arthur Baray, Capt. Ernest Raithel, Capt. Melvin Johnson, Capt. Harry Sanborn, Lieut. Kenneth Hoyt, Capt. Thomas Cavanaugh and Capt. Albert Wynne.

Colonel Tate, displaying characteristic ingenuity, has mounted one M45 quad caliber .50 mount on a personnel carrier which the headquarters battery uses for

combat operations. Capt. Leonard F. Wager, commanding the headquarters battery, is proud of the record of his administrative unit in a ground support role, using the special M39 mount. He says that they do not neglect their administrative duties in order to get in some fighting.

Lieut. Colonel Hanson narrated several stirring events of the units comprising the divisional AAA. I visited Battery A of the 26th Battalion which was preparing to displace forward from a position where it had been in combat for several days. Capt. Jack Harvey and Capt.

C. W. Harrison are with this battery along with 1st Lieut. Leon Blum, 1st Lieut. John Grimes, 1st Lieut. Jean Ron-despierre and 1st Lieut. Jack Hill.

Hanson described an occasion during the Chinese Big Push, when one of the M16 tracks of Battery A was knocked out at a road block and as the vehicle became disabled, the Chinese concentrated on it. Sgt. Guy Banner, Cpl. Gale Lip-pincott, Cpl. James Herd, Sgt. Gunn and Pfc James R. Miller were operating the weapon. After a while the enemy started a charge toward the weapon, but were repulsed. The enemy got close enough to throw hand grenades and repeated his assaults three times. On the third rush the ammunition of the M16 ran out and the crew took up its carbines and M1 rifles and continued a deadly fire on the enemy. About this time also the infantry relief came into view and the enemy fled. There were 150 dead Chinese Communists in the immediate vicinity of the M16. Pfc Miller was slightly wounded.

Two units of the battalion were credited at another time with saving the division air strip which was attacked by an enemy patrol. The antiaircraft weapons were located for air defense, but engaged the patrol during ten minutes of intense firing and drove them off. The enemy did not return.

The Korean War picture continues to develop as it approaches the first annual milestone. The AAA employment cycle has passed through a phase of emplacement, entirely to provide defense against air attack which did not develop; then total employment in ground support assignments. In spite of approved doctrine, its use initially was circumscribed by a wide difference of opinion as to its true potential in ground support roles. Now, however, there is a complete understanding of the antiaircraft artillery capabilities. Its employment in a wide variety of combat assignments has won for the ack ack troops the high regard of their comrades in the ground forces.

Silver Star

CORPORAL EDWARD O. BOUCHER, Battery "A," 50th AAA AW Bn. (SP). On 8 December 1950, between Chinhung-ni and Koto-ri, North Korea, while his unit was guarding the main supply route between these villages, in conjunction with the 1st Battalion of the 1st Marine Regiment, Corporal Boucher heard from a marine aid man that there were nine wounded marines on Hill 1081, a distance of about one mile. Through his own initiative and in the absence of orders, Corporal Boucher organized a detail of approximately ten men, consisting of marines and army personnel, and embarked upon the mission of evacuating these wounded to a medical aid station. The group's progress was impeded by rugged, mountainous terrain, a foot of snow, sub-zero temperatures, darkness, and an aggressive enemy force. On several occasions during the return trips to the top of Hill 1081, it was necessary to detour from the selected routes due to enemy fire. Corporal Boucher reconnoitered the alternate routes. On one occasion, after obtaining the wounded and during the descent, the group came under heavy enemy small arms fire. Corporal Boucher again disregarded his personal safety and reconnoitered for a route which would not subject the group to the then heavy volume of fire. The only possible escape lay over a steep precipice. Dauntlessly, and with determination, he hastily instructed the other members of the group in the manner in which the wounded would be handed down the cliff, although it necessitated digging footholds into the cliff and holding the cliff with one hand while lifting the wounded with the other. Three trips were made until the last of the wounded was delivered to safety at approximately 2400 hours. Through the entire ordeal, he never wavered in his determination to save the wounded men, regardless of the sacrifices and dangers to himself and his men. His courage, self-sacrifice and complete disregard for personal safety reflect great credit upon himself and the military service. x x x Iowa.

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OFFICER'S GUIDE



Antiaircraft Association ROTC Medal Award Winners

Listed below are this year's winners of the United States Antiaircraft Association ROTC Medal. The recipient of this annual award is selected from the Antiaircraft Artillery Senior ROTC units.

UNIVERSITY OF ALABAMA: Cadet Major G. Watkins, York, Ala., Adjutant of the Advanced Training Battalion at the University.

UNIVERSITY OF SAN FRANCISCO: Cadet Joseph E. Cartan, San Francisco, Cal., Cadet Colonel of

the ROTC regiment and is Captain (President) of the Scabbard and Blade chapter at the University.

UNIVERSITY OF CINCINNATI: Cadet Major Charles N. Jones, Cincinnati, Ohio, served in the Pacific in World War II with the 799th AAA AW Battalion.

THE CITADEL: Cadet Walter G. Kersy, Charleston, S. C., has consistently made above 90 per cent averages in military subjects. He is on the staff of student publications at The Citadel.

UNIVERSITY OF DELAWARE: Cadet Joseph M. Lank, Milford, Del. He is first sergeant of the Delaware Rifles and of Battery A, ROTC Regiment; President, Junior Class, Student Government Association and a member of Omicron Delta Kappa.

FLORIDA A & M COLLEGE: Cadet M/Sgt. Raymond Cutts, Jr., Eatonville, Fla., has maintained a 96.4 average in Military Science over a three year period. His extracurricular activities include the ROTC Officers' Club (President-elect); Alpha Kappa Mu Honor Society and Sigma Tau Mu Debating Society.

UNIVERSITY OF ILLINOIS: Cadet John B. Droste, Mount Olive, Ill., is a veteran of World War II. He served with a medical detachment on an army transport. He is president of Alpha Rho Tau, an artillery club.

KANSAS STATE COLLEGE: Cadet Wayne Horiacher, Colby, Kansas, is active in Scabbard and Blade, the College Band and Theta Xi.

NORTHWESTERN STATE COLLEGE OF LOUISIANA: Cadet Rudy C. Berlin, Nederland, Texas, served three years in World War II in the Signal Corps. Vice-President of his class, commander of the ROTC Drill Team and a member of Phi Kappa Nu.

MICHIGAN STATE COLLEGE: Cadet 2nd Lieut. Frank C. Halley, Detroit, Mich., winner of Scabbard and Blade Medal in 1950. Member of Lambda Chi Alpha.

UNIVERSITY OF MINNESOTA: Cadet Sidney J. Verlautz, Pine River, Minn., is first sergeant of Battery C and a member of Scabbard and Blade.

UNIVERSITY OF NEW HAMPSHIRE: Cadet Conrad S. Caron, Nashua, N. H., served in the Army for two years as a cryptographic technician. He is majoring in Electrical Engineering.

FORDHAM UNIVERSITY: Cadet Donald M. Opel, New York City, is a first sergeant in the ROTC Regiment and is a first sergeant in the New York National Guard. He is active in the Society of Pershing Rifles.

TEXAS A & M: Cadet Kenneth M. Wiggins is a student senator and President of the Wesley Foundation.

UTAH STATE AGRICULTURAL COLLEGE: Cadet 2nd Lieut. Glenn J. Thorsted, Ogden, Utah, served in the Merchant Marine in World War II and later in the Army in Japan. Military average, straight "A."

HAMPTON INSTITUTE: Cadet M/Sgt. Norman G. Tarleton, Sumter, S. C., is active in Scabbard and Blade, Pershing Rifles and Omega Psi Phi.

VIRGINIA POLYTECHNIC INSTITUTE: Cadet Billy M. Brammer, Stuart, Va., is to be a battalion commander in the ROTC in 1951-1952. He is active in Pershing Rifles and Omicron Delta Kappa.

UNIVERSITY OF WASHINGTON: Cadet Gordon L. Creighton, Seattle, Wash., is captain of the Army ROTC Drill Team and is active in Scabbard and Blade. He served on occupation duty with the 11th Airborne Division in Japan.

WASHINGTON UNIVERSITY AT ST. LOUIS: Cadet Joe M. McMullin, Essex, Mo., is majoring in Political Science.

YOUNGSTOWN COLLEGE: Cadet 1st Lieut. Emmett C. Shaffer, Jr., Brookfield, Ohio, has an outstanding scholastic record and is a leader in ROTC activities.

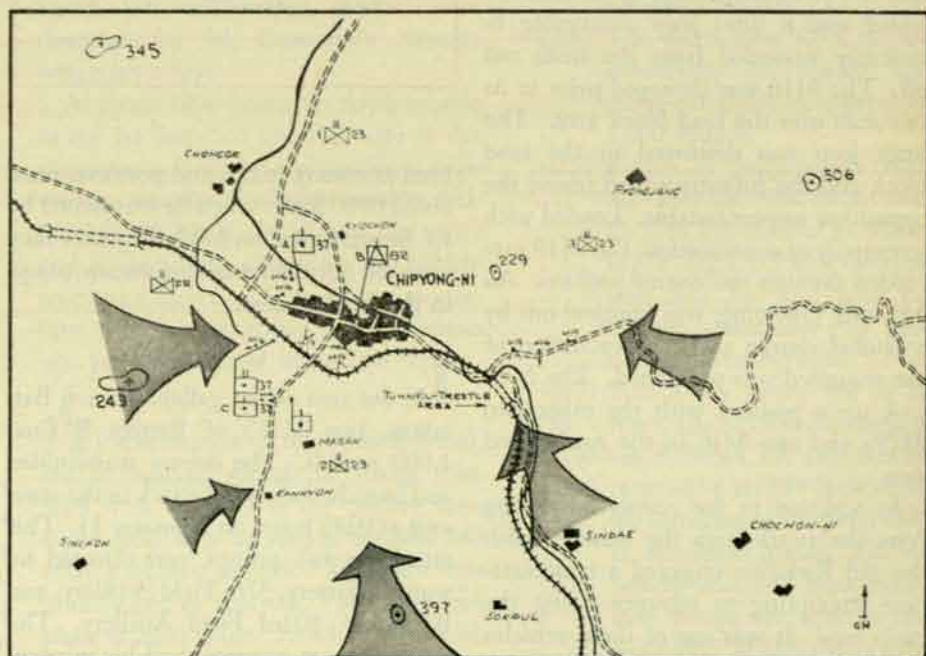
Universities yet to be heard from will be covered in a subsequent issue of the JOURNAL.—Ed.

Accompli at Chipyeong

By Lt. Col. Walter Killilae and
Capt. Clyde T. Hathaway

THE battle of Chipyeong is a classic example of American superiority in arms. The action was the basis used for recommending the 23rd Regimental Combat Team, 2d Infantry Division as a distinguished unit. The action at Chipyeong, a typical Korean village along one of the principal rail lines in South Korea, is positive proof that an active, coordinated defense can succeed. Dubbed the Bastogne of the Korean war, Chipyeong played an important part in Lt. General Matthew B. Ridgway's Eighth Army offensive action designed to inflict maximum casualties upon the Communist enemy with minimum losses to the United Nations Forces. This is an account of the action of Battery B, 82d AAA AW Battalion (SP), a part of the 23rd Regimental Combat Team used in this action on close support mission.

The French Infantry Battalion under the leadership of Lt. Col. (Major General) Ralph L. Monclar, was attached to the 23rd Infantry Regiment. Other attached units were the 37th Field Artil-



Silver Star

SECOND LIEUTENANT BRUCE W. FAULKNER, a member of Battery B, 82nd AAA AW Bn. (SP), 2nd Infantry Division, displayed gallantry in action against an armed enemy on 14 February 1951 in the vicinity of Chipyeong-ni, Korea. On that date the platoon commanded by Lieutenant Faulkner was attached to a rifle battalion. During an enemy attack he remained in an exposed position and directed the fire of his weapons against enemy positions and in support of a counter-attack. Upon completion of the counter-attack, the infantry was moved elsewhere to meet another enemy assault. Lieutenant Faulkner noticed enemy movement and was subjected to enemy small arms fire from the area that the infantry had just vacated. He left half his gun crews to provide covering fire and led the other half into the area as riflemen. His aggressive action was responsible for the annihilation of 20 enemy, the capture of 10, and the security of the defensive perimeter. The gallantry displayed by Lieutenant Faulkner reflects great credit upon himself and the military service. x x x Florida.

lery Battalion (105mm), Lt. Col. John R. Hector; Battery B, 503rd Field Artillery Battalion (155mm); Capt. Clemen C. Marshal, and the 1st Ranger Company. The AAA Battery rounded out the organization for combat. As is normal in defensive situations all artillery units, including the AAA, were in general support.

Chipyeong was initially occupied on February 3. For nine days friendly and enemy patrols were active throughout the area. Col. Paul Freeman organized his forces into an oval defense, assigning each infantry battalion roughly a quarter of the oval. Dispositions are shown on sketch map.

Battery B had available on February 12, four M19's and six M16's, with two basic loads of ammunition. The battery had an even hundred men present for duty. Assisting Capt. Hathaway, the battery commander, were: Capt. James C. Wilson, executive officer, 1st Lt. Joe W. Seymour, 1st Platoon commander, 2d Lt. George Hair, 2d Platoon commander,

and 2d Lt. William Faulkner, assistant platoon commander.

Battle sounds were heard around most of the perimeter by 2200 hours on February 12. The Battery command post was alerted and the executive officer established liaison with regiment. An initial check on the available communications was made. Radio communications consisted of FM (SCR 508 and ANVRC-5), with all but one of the combat vehicles and with regiment, AN/GRC-9 with each platoon commander, and SCR 300 from each platoon to each infantry battalion. Wire communications included a conventional hot loop to those vehicles in the battery area as well as wire lines to each vehicle through the units they were supporting.

By 2230 hours, enemy artillery began falling in the center of the village where the unit command posts were located. The first enemy attack was felt by K Company, 3rd Battalion, on the southeast perimeter where the enemy advanced from hill 397. The initial attack

of 2235 hours was continued. Action in this area continued as the enemy poured from a railroad tunnel and across the trestle. By 0300 hours February 14 the AAA weapons supporting this action had fired 580 rounds of 40mm and 2,200 rounds of caliber .50 ammunition. The enemy had succeeded in getting a few troops inside the perimeter who established a road block in the rear of 3rd Battalion position. Lt. Hair organized a small AAA support force of one M16 and one M19 to accompany an infantry squad and a litter jeep attempting to evacuate wounded from the units cut off. The M16 was damaged prior to its entrance into the road block area. The litter jeep was destroyed in the road block and the infantry squad found the opposition unpenetratable. Loaded with a resupply of ammunition, the M19 proceeded through this enemy position. An M4 tank following, was knocked out by a satchel charge and the evacuation of the wounded was postponed. The M19 took up a position with the other two M19's and one M16 in the surrounded area.

In addition to the enemy advancing from the trestle area the vehicles with the 3rd Battalion engaged a concentration attempting to advance along the main road. It was one of these vehicles commanded by Sgt. F/C Nick Schelbrach which provided an interesting aspect of spotting and communication teamwork. Without a map or compass (reason unknown), Schelbrach described the location of an enemy mortar position to his battery commander over the FM net. The position was plotted at the CP and Capt. Wilson was called at regiment, where he made personal contact with the heavy mortar company liaison officer, who in turn called the mortar fire direction center requesting fire. Using the same tortuous communications procedure one adjustment was made. The mortar fired for effect and the enemy mortar position was no more.

The battery command post area was not quiet during the night of February 13-14. Between mortar rounds, one of which wounded 1st Sgt. John A. Norgren, and heedless of sporadic long-range fire of small arms, the maintenance section repaired the damaged M16 by 0400 hours. Sgt. Amado Bareda, the squad leader, proceeded back to the fire block which had previously cut off positions of the 3rd Battalion. He maneuvered and



fired at enemy troops and positions until about 0800 hours when he was joined by Lt. Seymour and an M19. Together they knocked out the remaining enemy troops in the blocked area.

IN the area of the gallant French Battalion, two M16's of Battery B fired 1,000 rounds. The enemy reassembled and launched a second attack in the same area at 0245 hours on February 14. This attack, in two prongs, was directed toward C Battery, 37th Field Artillery, and B Battery, 503rd Field Artillery. The enemy almost accomplished his mission. Fighting reached points within twenty yards of the M16's before it was finally repulsed from that sector at 0700. One M16 defending that area fired 2,000 rounds. Hand-to-hand fighting for nearly eight hours marked the intensity of

Silver Star

CORPORAL DONALD TRACY, a member of Battery D, 82nd AAA AW Bn. (SP), 2nd Infantry Division, displayed gallantry in action against an armed enemy on 12 February 1951 in the vicinity of Hoengsong, Korea. On that date he was a squad leader and gunner of an antiaircraft firing vehicle which was supporting a convoy in an attempt to break through an enemy roadblock. Although he had been wounded, he continued to direct the fire of his crew, and succeeded in silencing several enemy automatic weapons. When his gunners had almost exhausted their ammunition, he assumed an exposed position outside the armored turret in order to clip ammunition for the gunners and enable them to continue firing. When the road was blocked by burning and abandoned vehicles, he dismounted under heavy enemy fire to direct his driver in pushing the vehicles from the road, thus making it possible for the column to proceed. The gallantry displayed by Corporal Tracy reflects great credit upon himself and the military service. x x x Missouri.

the enemy attack in the area of the 503rd where the enemy did succeed for a short time in occupying the gun positions. By 1100 hours the enemy was driven out. One M16 supported that action and expended 10,000 rounds.

The cardinal principles of war followed by the Chinese Communist Forces were that they would never attack unless they had vast superiority of force and that other conditions were favorable to them. At Chipyeong they had such a preponderance of numbers that they threw caution to the wind and continued their attack during the daylight hours of February 14. As was true of all other arms that day, the antiaircraft reaped a fruitful harvest of Chinese. Here are a few extracts from the Battery journal:

- 0700 An M16 and an M19 fired 180 rounds of 40mm and 1,500 rounds of caliber .50 in the French sector at enemy on hill 345.
- 0800 Sgt. Rognrud's section displaced to the southeast perimeter and fired 400 rounds of 40mm and 1,000 rounds of caliber .50 on enemy personnel, vicinity of hill 506.
- 1000 Fifty enemy approaching the perimeter through valley of MSR; dispersed by M16 in K Company area.
- 1100 Platoon in vicinity of K Company fired on targets of opportunity for remainder of day.
- 1000 M19 in Battery CP area began firing on enemy troops on hills 345, 248 and 397. Fired until 1800 with good results observed. Three hundred rounds expended.
- 1300 Two M16's and one M19 in K Company area engaged enemy company approaching from south. Attack repulsed. One hundred twenty-eight rounds 40mm and 600 rounds caliber .50 ammunition expended.
- 1600 Eleven enemy destroyed by M16 near hill 248.
- 1630 On request of B Company an M16 and an M19 fired at enemy groups attempting to withdraw over hill 397. Two hundred fifteen rounds 40mm and

Silver Star

MASTER SERGEANT ROBERT W. SWEENEY, a member of Battery D, 82nd AAA AW Bn. (SP), 2nd Infantry Division, displayed gallantry in action against an armed enemy on 12 February 1951 in the vicinity of Haklam-ni, Korea. On that date, in the absence of an officer, he assumed command of an anti-aircraft firing vehicle and led a convoy through an enemy roadblock. Despite the heavy enemy small arms, machine gun and mortar fire, he maintained an extremely exposed position on the outside of the armored vehicle in order to fire the forward .30 caliber machine gun, and direct the fire of the 40mm guns. When the 40mm guns could not be depressed far enough to fire on two enemy machine gun positions, he calmly remained in position and, with his .30 caliber machine gun, succeeded in destroying the enemy positions. The gallant and inspiring actions of Sergeant Sweeney reflect great credit upon himself and the military service. x x x Louisiana.

600 rounds of caliber .50 expended.

1700 An M19 in the K Company area destroyed enemy machine gun above railroad tunnel which had been firing at vehicle while men ate hot A ration. One round expended.

One portion of the action deserves more than a passing mention. In their efforts to firmly reestablish the perimeter position which they had lost the preceding night, the 3rd Battalion launched a counterattack which kept contact with the enemy all during the day. At about 1600 K Company made a bayonet charge on dug-in enemy along the foot of hill 229. Covering that attack, 2d Lt. B. W. Faulkner dismounted his gun crew and began systematically clearing the remaining enemy by rifle fire and bayonet action. His crews were reinforced by K Company personnel and the enemy thrusts were completely cleared before darkness. For this action Lt. Faulkner has been awarded the Silver Star.

During the daylight hours and continuing into the night of February 14-15 air drops of rations, gasoline and ammunition were made to the force. These drops included 40mm and caliber .50 ammunition for B Battery.

High velocity artillery fire was received during the night of February 14-15. It started about 1930 hours in the K Company area, and was promptly returned by an M19 in that area. The piece, probably an SU-76, was not eliminated by 40mm fire, but it was forced to pull back. Each time the weapon reopened fire, it was answered by the

M19, which prevented any accurate firing. Action in the K Company area, generally that area guarding the approaches from the trestle and tunnel, was heavy all night. Considerable small-arms, automatic-weapons and mortar fire was received. The two B Battery vehicles accounted for three enemy machine-gun positions and 75 enemy troops were exterminated after 150 rounds of 40mm and 4,500 rounds of caliber .50 ammunition were expended. Efforts similar to those employed the previous night to knock out an enemy mortar were thwarted by M Company's mortars which hit it first.

At about 2200 hours, an AAA vehicle in the 1st Battalion (north), area of the perimeter was hit by a projectile; a high velocity weapon (probably another SU-76). It was hit at the base of the turret and at almost the same time the vehicle received a direct hit from a light mortar. One man was wounded and the turret was jammed beyond immediate repair.

AT the request of the French Battalion, a hundred rounds of 40mm were fired from an M19 in the battery command post area at targets on hill 248 with excellent results. This fire was initially laid by compass. The action took place at 2200 hours. At 2400 hours Col. Du Michele (French Artillery Officer), requested more fire. Another hundred rounds were fired. While engaged in this mission the M19 received machine-gun fire from hill 397 which was in the opposite direction. Traversing the guns, the M19 engaged in a brief but fierce fire fight and destroyed two enemy machine-gun positions. In addition to the machine-gun fire described above, enemy small-arms and mortar fire was received in the command post area all night.

Other significant actions which occurred during the night were enemy engagements near artillery positions. Journal extracts relate the story as follows:

0030 15 February: The M16 near B/503rd FA reported that weapons in the perimeter near him had been knocked out and personnel on the perimeter were withdrawing under pressure. This was the only weapon without a radio. The squad leader was ordered to sever wire communications and place himself under the

command of an artillery officer from the unit he was supporting. Following those orders and moving to support a friendly counterattack, the M16 was run off the narrow road into a ditch. Under heavy fire of all types, the crew sought cover near the vehicle and engaged the enemy with small arms, leaving one man in the vehicle with grenades prepared to destroy the weapon on order.

0100 The M16 near C/37th FA neutralized an enemy machine-gun position, expending 1,000 rounds.

0210 Firing in conjunction with 4.2 mortars, the M16 near C/37th FA assisted in silencing a high velocity weapon near hill 248 and later destroyed a machine-gun position in the same area.

0600 Still under heavy fire of all to types, the M16 in the ditch in

0830 the B/503rd FA area was recovered by an M4 tank under the direction of Corporal Fisher, the squad leader. The FA battery area had been evacuated except for some of the wounded. While the remainder of the crew carried ammunition to tanks in the area,

Silver Star

MASTER SERGEANT FRANK J. MAGUIRE, a member of Battery D, 82nd AAA AW Bn. (SP), 2nd Infantry Division, displayed gallantry in action against an armed enemy on 12 February 1951 in the vicinity of Hoengsong, Korea. Sergeant Maguire's battery, in vehicular column, was withdrawing through a series of hostile fireblocks. When the vehicle in which he was riding was destroyed by enemy fire, he was ordered to proceed through the hills on foot, to safety. Under cover of darkness, Sergeant Maguire and a comrade became separated from the main group and, at daylight, joined a small group of Republic of Korea soldiers. When the group was subjected to enemy fire from the high ground on its right flank, Sergeant Maguire immediately organized the men and led them in an assault on the enemy position. Under his fearless leadership the group aggressively charged the enemy forcing them to break and run, abandoning two machine guns, two rocket launchers and a large amount of ammunition. He directed the fire of the machine guns upon the enemy and inflicted heavy casualties upon them as they fled. He then led his men back to the road and joined a friendly convoy that was moving south. The gallantry displayed by Sergeant Maguire reflects great credit upon himself and the military service. x x x Washington.

Pfc. Lucksted, Pvt. Okimoto, and an artillery officer manned the weapon, engaging the enemy in the former G Company positions. Enemy attempting to move into the area from the east were also repelled, and the evacuation of wounded from the area was covered. Seven thousand rounds of ammunition had been fired in 2½ hours, the barrels burned out and were frozen to the barrel extensions, a stoppage novel to this unit. The vehicle was evacuated to the command post area.

0630 Air drops and air strikes were to conducted throughout the day. At the end of the day, more than three basic loads of ammunition were on hand. The enemy sporadically shelled the drop zone and the C. P. area. Medium-range sniper and machine-gun fire were also received in the C. P. area. Capt. Wilson, Lt. Faulkner, and one man were lightly wounded. One other man was seriously wounded.

Unbeknown at this time to the Chip-yong garrison, the enemy force of at least two army corps (probably four Chinese Communist Force Divisions), was badly hurt by the morning of February 15. Heavily engaged with other forces in the Wonju area to the east of Chip-yong, the

communists were also being repulsed at great cost to our enemy. The now famous "Wonju shoot" was in progress, where the 2d Division Artillery plus the 674th Airborne FA Battalion (105mm), and the 96th FA Battalion (155mm), were harassing two more CCF army corps to pieces. In addition to these factors, relief was on the way to our gallant forces at Chip-yong. On the morning of February 15, a British brigade attacked northward from Yaju and a battalion of the 1st Cavalry Division mounted on tanks pushed out toward the beleaguered town.

At Chip-yong, enemy action continued. Mortar, artillery and small-arms fire fell in the town proper. B Battery fired more than 20,000 rounds of caliber .50 and over 1,000 rounds of 40mm ammunition during the day in the same fire fight. Here are a few of the journal notes:

0940 M16's in vicinity of Battery A, 37th FA Battalion, fired on hills 310 and 397 neutralizing an enemy OP, silencing one SP gun and two mortars. Undetermined number of enemy killed.

1010 Enemy small-arms fire from hill 397 still landing in CP area. All weapons fired. Lt. Seymour fired caliber .50 ring mount. Small-arms fire ceased at 1022.

1330 M16 in vicinity of A Battery, 37th FA Bn, fired at enemy troops in open on hill 248. Troops dispersed.

1515 Three men gathering ammunition from air drop zone hit by enemy mortar fire.

1600 Section under Lt. Hair acting in conjunction with tanks repulsing an enemy attack from southeast in vicinity of G Company.

1700 Garry Owen to the rescue, 1st Cavalry tanks arrived in area.

SPORADIC action continued for the remaining thirty-six hours that the 23rd RCT stayed at Chip-yong but there was no significant action. Due to the nature of the terrain, no AAA weapon was able to fire from defilade during this action. Also due to the nature of the terrain, weapons directly supporting any sector of the perimeter were, necessarily, less than 100 yards behind the MLR.

Because the tactics of this unit call for frequent displacement during shelling, no weapons were dug in.

At a cost of fifteen wounded, eight of whom were evacuated, three basic loads of ammunition, and the temporary loss of one M19, Battery B had effectively supported a gallant infantry unit in what has been called a classic defense against a determined enemy whose strength is estimated at four divisions; once again justifying the battalion motto: *Accompli*.

The principle of support had again been justified, for, as can be seen in this account of the action, all AW weapons were in support of rather than attached to infantry or artillery units they were assisting.



Searchlights In Korea

By Lt. Col. Walter Killilae, Arty.

ONE of the additional missions assigned to the 82d AAA AW Battalion, 2d Infantry Division, in Korea was that of coordination and tactical employment of searchlights on ground support missions.

On April 13, 1951, a platoon, plus one section of the 92d Engineer Searchlight Company, was attached to the battalion

with the mission of battlefield illumination and general ground support. That platoon was employed during the remainder of the month in the vicinity of the Hwachon Reservoir. Some of the results were:

13 April: Aerial OP adjusted fire of a medium artillery battalion using illumina-

nation provided. Forward observer of a direct support artillery battalion adjusted fire. Results excellent.

14 April: A forward observer of a medium artillery battalion fired a mission in the town of Yanggu using illumination provided by lights. Adjacent division reported illumination adequate to see enemy movement on their front.

Silver Star

SERGEANT FIRST CLASS EIRVIN BAILEY, a member of Battery D, 82nd AAA AW Bn. (SP), 2nd Infantry Division, displayed gallantry in action against an armed enemy on 11 and 12 February 1951 in the vicinity of Chang-bong-ni-Hoengsong area, Korea. On the night of 11 February 1951, his battery was attacked by a numerically superior enemy force and was ordered to withdraw. When the convoy moved out he was in command of lead vehicle. The motorized column had moved about one half mile when it was subjected to heavy enemy mortar fire. Sergeant Bailey's vehicle was destroyed and he was forced to seek cover along the side of the road. At dawn on 12 February 1951 he found no officers present, so he organized a crew for an antiaircraft firing vehicle and led the convoy to Haktam-ni. There, he was put in command of another firing vehicle, obtained another crew and voluntarily led a convoy of unarmored vehicles loaded with wounded toward Hoengsong. At five points along the road enemy positions were encountered. He continuously maintained an exposed position in order to most effectively direct fire of his guns and on each occasion neutralized the enemy emplacements. The gallantry displayed by Sergeant Bailey reflects great credit upon himself and the military service. x x x Arkansas.

16 April: An OP of 2d Reconnaissance Company observed a boat on the Hwachon Reservoir about 1,000 yards away. A light artillery battalion fired on target, sunk boat.

20 April: The town of Yanggu was illuminated to the extent that buildings and roads were visible and movement was detected.

22 April: Lights illuminated area for a division artillery TOT. Results excellent.

23 April: A forward observer of a light battalion adjusted fire on an enemy group. Could not see bursts of HE but when WP was used, he could make proper adjustment. Results excellent.

24 April: Battlefield illumination provided for infantry. Excellent results.

The results speak for themselves! Now for the problems which had to be solved to attain this success.

By this time, everyone has heard about the pitiable conditions of Korean roads. They did effectively limit movement of searchlight and generator trailers. To offset that difficulty, trailers were eliminated by mounting the lights on 2½-ton trucks and the generators were mounted on four wheels and towed by the searchlight trucks.

The problem of providing battlefield illumination on cloudy, hazy, smoky or overcast nights caused some trouble. Of

course, the time-proven theory of reflecting light from low-hanging cloud masses proved successful.

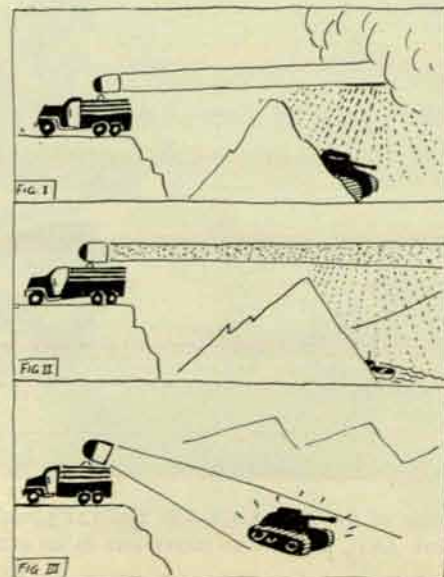
In order to determine the angle of elevation required to provide reflected light (Fig. 1) on a given target the formula:

$$\frac{\text{Alt of clouds in yards} - \text{Alt of SL in yards}}{\text{Range in thousands of yards}} = \text{Elevation of SL in mils}$$

was used. The Metro Section, 2d Infantry Division Artillery, provided the altitude of the clouds. The altitude of the lights and the range to the target were available from maps. Of course the mil elevation had to be converted to degrees in order to operate the lights.

Extremely dry weather, fires set by friendly artillery, Communist efforts to put up a smoke screen, and the almost complete lack of low-hanging cloud cover, combined to require us to depend on diffused light. Diffused light is made by the diffusion of the beam caused by dust and smoke. This type lighting (Fig. 2) proved successful enough for forward observers to adjust fire and for friendly observation posts to detect enemy movement.

Direct lighting, the shining of the searchlights directly on a given area, usually from a high point down a corridor, was used only once due to the adverse atmospheric conditions (Fig. 3). When it was used, however, it produced such a brilliant effect on the southwest side of the Hwachon Reservoir that Commandant Michele of the French Battalion reported the area lit up like Coney Island.



Silver Star

MASTER SERGEANT ROBERT L. CRAWFORD, a member of Battery D, 82nd AAA AW Bn. (SP), 2nd Infantry Division, displayed gallantry in action against the enemy on 30 November 1950 in the vicinity of Kunu-ri, Korea. On the night of that date, he was riding in a convoy composed of the command group of the Division which was attempting to break through an enemy roadblock that was approximately five miles in depth. He rode the last combat vehicle to clear the roadblock and directed the fire of his guns against all targets of opportunity. He rallied other units to proceed through the roadblock, even though it was necessary for him to dismount and expose himself to the intense enemy fire. Despite the heavy enemy fire, he stopped his vehicle on numerous occasions to pick up the wounded lying along the road who otherwise would not have been evacuated. After negotiating the roadblock Sergeant Crawford voluntarily returned to the area to assist other personnel to safety. The outstanding leadership and complete disregard for his personal safety displayed by Sergeant Crawford on this occasion reflect great credit upon himself and the military service. x x x Alabama.

It was anticipated that control, adjustment and communications would be difficult problems. However, the placing of the lights in the general vicinity of the artillery battalions which required those units to lay wire lines to the lights minimized those problems. A forward observer, with an infantry unit, could call his battalion fire direction center by telephone or radio, request an adjustment of the lights and the FDC could then relay the instructions to the lights. When wire lines were used, the relay at FDC was not necessary. On several occasions, SCR 508's were placed at the light position and radio adjustments were made directly from aerial observers. Later experience proved this use of radio necessary.

As a result of the experiences gained by this unit using searchlights in Korea, it can be concluded that: they can be used to provide adequate battlefield illumination under nearly all conditions, they can be used to illuminate artillery targets at night, they can be attached to and coordinated by the organic AAA AW battalion.

(We have withheld earlier stories from other AAA battalions in Korea about searchlight operations for reasons which appeared cogent. Anyway, now it can be told. And we do hope that our good friend, Col. Sandy Goodman, a pioneer in this field in Italy, may note the results with great satisfaction from his present dugout in the Canal Zone.—Ed.)

The 21st AAA AW Battalion (SP) In Combat

WHEN it docked at Pusan on January 10, 1951, the 21st AAA AW Battalion (SP) brought with it plenty of what the Reds fear most in Korean fighting—American fire power. The battalion's primary armament, 64 Multiple Gun Motor Carriages M16, could hurl more than 140,000 rounds of caliber .50 bullets per minute.

Emphasis in the battalion's training at Fort Bliss had been on antiaircraft activities. Its last range practice in Japan was fired at towed targets and RCAT's. Yet enemy aerial activity in Korean fighting was notable only by its absence. What was the mission in Korea? Was an air assault expected? Or was it to stand by just in case?

No one in the 21st doubted that its tremendous fire power would be fully utilized. Lt. Col. Charles E. Henry, battalion commander, had given the clue to his men just before leaving Japan for Korea.

"We have been successful in replacing our M15's with M16's," he said. "We now have more fire power than any battalion in the Army. You may be sure that it will not be allowed to stand idle. Remember, our mission is to destroy the enemy; in the air, on water, and on the ground. In addition to your technical skills, you are trained in the basic principles of soldiering. You are good anti-aircraftsmen, and if you can shoot down a fast-moving airplane, you can shoot down anything."

After an arduous but well-executed three-day, 300-mile road march from Pusan to Chonan, the 21st joined the 25th Division on 25 January 1951. The same day, outnumbered UN Forces launched their brave counteroffensive in the face of enemy boasts of pushing them into the sea. The following day, General George B. Barth, CG, 25th Division Artillery, stated the battalion's mission. "The Army commander," he said, "has directed that the 21st give direct ground support to infantry operations."

Now the battalion had a mission.

ORGANIZATION FOR THE GROUND ROLE

A FEW minor changes in organiza-

tion adapted the battalion to its ground mission. Headquarters and headquarters battery, attached to Division Artillery, normally maintains its C.P. adjacent to that of the division. Battalion headquarters needs for personnel and transportation are reduced when employed in the infantry support role. For this reason overhead and transportation are cut to a minimum and personnel and vehicles considered surplus are redistributed to firing batteries. One firing battery is attached to each regimental combat team, and the remaining battery is retained under battalion control for defense of the division air strip and the general support artillery battalion.

Batteries with RCT's are organized into battery headquarters and four provisional platoons of four M16's each. Battery headquarters remain with the regimental C.P. and one provisional platoon is placed in direct support of each infantry battalion. The last provisional platoon is retained in reserve for use as reinforcements, replacements, or as otherwise directed by the regimental commander.

The battery defending the air strip and GS artillery is organized and functions as a normal AW battery with battery headquarters and one platoon at the air strip and the remaining platoon with the GS artillery battalion.

Firing batteries are rotated periodically from infantry to air strip and GS artillery assignments. Rotation is controlled by the battalion commander to provide optimum maintenance and to obviate crew fatigue. Batteries with RCT's similarly rotate platoon assignments from line to reserve.

OPERATIONS IN THE GROUND ROLE

OPERATIONAL control of elements of the battalion with RCT's is exercised by the supported unit commander. The AAA battalion commander makes general recommendations for employment to these commanders by personal visits and written directives published through the division artillery headquarters. Supervision and administrative control is maintained through battalion command channels and by means of frequent staff visits.

Specific recommendations for employment of AAA weapons are made to infantry commanders by the attached AAA unit commander. Except for special operations, such as the Han River crossing, battery headquarters is concerned mainly with administrative support for its platoons. The critical relationship between AAA and infantry is between the platoon commander and the supported in-



U.S. Army Photo

Men of the 21st AAA AW Bn. (SP), supporting the 3rd Bn., 35th Inf. Regt., 25th Inf. Div., prepare to move out in an attack on enemy-held hill north of the Han River.



U.S. Army Photo

Pfc. V. L. Cresswell, 21st AAA AW Bn. (SP), an ammo bearer on a quad .50 machine gun, waits to reload. Note armored vest worn by all M16 crewmen.

infantry battalion commander. It is here that the broad directives of the combat order must be reduced to specific details of who will do what, when, where and how.

It is vital for the AAA platoon leader to know intimately the plans of the infantry battalion commander. Knowing these plans our platoon leaders make thorough ground reconnaissance, choose routes of approach, select positions, and make plans for displacement to provide continuous support.

Platoon leaders then advise supported battalion commanders of their plans and to what extent they are able to support a particular operation. Coordination with infantry company commanders is then completed. It should also be mentioned that our platoons work very closely with tank units and coordination with tank unit commanders is particularly important.

AAA SUPPORTS INFANTRY ATTACK

PLANS, reconnaissance, and coordination have been completed. Orders are issued to the platoon. H Hour draws near. Artillery begins to pound the objective. M16's move up with tanks to initial firing positions, usually on the line of departure, and at H minus 10 start saturating the objective which is usually a rugged hill. At H Hour the infantry jumps off, and M16 crews observe panels worn on backs of leading elements and continue to fire neutralization fire ahead of them. During the course of the attack our platoon leaders aggressively move their guns forward to deliver maximum support.

In considering our operation in the attack mention should be made of task force support and strong combat patrol activities. In Task Forces Dolvin and Bartlett, which spearheaded the division's drive to the Han River, two platoons of M16's (four M16's each) accompanied each force. They delivered saturation fire as required by attacking echelons and protected trains forward of the lines of departure. Our M16's frequently assist tank-infantry teams on strong combat patrols by delivering covering fire when required.

A RIVER CROSSING

THE Han River crossing provided a wonderful opportunity for our weapons to show their effectiveness. The regimental combat team commanders showed an appreciation of the value of M16's in their plans for the assault crossing and the development of the attack on the far bank. The wide sandy beach on the south bank provided space for employment of almost three complete batteries.

There was no cover and our crews occupied positions during darkness the night before the crossing. At H minus twenty while darkness still obscured the far bank of the river, our guns joined the artillery in saturating predetermined sectors of the enemy shore. At H Hour the artillery lifted, and the far shore became visible. As the assault troops crossed the river in boats, our guns delivered covering fire. After the infantry gained a

beachhead they fired on the flanks and at targets of opportunity.

For the initial phase of the crossing all weapons were under regimental control. After ferries and bridges became available, our weapons reverted to infantry battalion control and joined tanks and infantry on the far shore to patrol forward to search out the enemy.

Statistics for the battalion resulting from the river crossing were as follows: Period 7-10 March: Enemy: 641 certified killed; 1,077 additional estimated killed; prisoners of war seven. Casualties sustained: wounded in action three.

DEFENSIVE OPERATIONS

THE 21st, until April 22, 1951, had little occasion to be used in defensive fighting. To be sure, our M16's had been placed on the infantry's perimeter defenses organized to repel night counterattacks on newly won objectives, and several enemy counterattacks of limited size were encountered and repulsed.

Then came the long-expected, full-scale counteroffensive. Red hordes swarmed from the North. With utter disregard for casualties they walked through artillery concentrations and continued their pressure on UN lines. UN policy was to inflict maximum casualties while making orderly withdrawals to more tenable positions. Our weapons were well suited to carry out this policy.

In general M16's in defensive fighting



Moving up with infantry.

Silver Star

SERGEANT JOE E. MARSHALL, a member of Battery A, 50th AAA AW Bn. (SP), is cited for heroism in action against the enemy in Korea on 2-3 December 1950. While in the vicinity of Majon-dong Sergeant Marshall, in command of an M-16 half track (.50 caliber quadruple mounted machine gun), was given the mission of supporting a rifle company. Shortly before midnight the enemy attacked the perimeter which he was defending and simultaneously blew a nearby highway bridge. Acting entirely on his own initiative he located the enemy and proceeded to move his weapon to a more advantageous firing position about 50 yards down the road and outside the defense perimeter. In accomplishing this mission he exposed himself to heavy enemy automatic weapons fire inasmuch as it was necessary for him to move ahead of his half track vehicle in order to guide it through the darkness. From his new position, effective fire was delivered on the enemy with the result that they were driven off with no casualties to friendly troops. His heroic actions were entirely voluntary and reflect great credit on himself and the military service. X X X Kansas.



U.S. Army Photo

Cpl. William L. Rose, 21st AAA AW Bn. (SP), 25th Inf. Div., checks the quad fifties mounted on his half-track.

get markers for suspected enemy activity.

The attack comes. Every available method of illuminating the enemy is employed. The enemy continues his mass attacks without regard for casualties. Our M16's fire at the massed enemy, taking tremendous toll. The order to withdraw comes. Our M16's remain with the rear guard company while the other infantry elements disengage and withdraw. Then the rear guard company begins to disengage. Meanwhile our M16's and tanks are delivering covering fire. As the last elements begin to disengage, the M16's begin to withdraw squad by squad until the last weapon is moved out. The M16's continue to form a rear guard for the disengaged battalion until it passes through the reserve elements in blocking positions.

The nature of the withdrawal depends on the pressure exerted by the enemy. Sometimes the withdrawals are conducted according to plan and with little

enemy interference. But this is not always the case. In one engagement the enemy attacked with such force that he was able to infiltrate our lines in considerable strength. In this particular engagement an infantry battalion was cut off. Before they were discovered at our rear, an M16 driver killed, with his carbine, three Reds who attempted to climb over the vehicle hood as the rest of the crew was breaking up a banzai charge to the front. Shortly after the Reds were discovered at the rear, the battalion's order to withdraw came. One section of M16's went forward with tanks to spearhead the battalion out of about four miles of road-blocks as the other section remained to support the rear guard. The infantry battalion commander is reported to have said when his battalion reached safety, "I don't think I could have made it without the Ack-Ack."

The same general principles described above are employed in defense of a line to be held. Here M16 positions are well dug in and more extensive plans for communications, fields of fire, and illumination of the battlefield are made.

COMMUNICATIONS

EMPLOYMENT in the ground role poses no appreciable problems in communications. Battalion headquarters makes full use of division wire nets and its own FM and AM radio nets to maintain contact with batteries. Battery to

are placed interspersed with tanks and infantry on the main line of resistance. During darkness, they remain in position on the MLR. Before daylight our M16's move back into defiladed areas from which they may move quickly into firing positions if required. The enemy takes advantage of the inability of our air power to deliver support during hours of darkness and launches his strongest attacks at night. Reconnaissance, coordination and plans for displacement are particularly important in defensive employment. Reconnaissance of routes of withdrawal must be made during darkness as well as daylight. Alternate routes must be found. Emergencies must be anticipated. The AAA platoon leader coordinates with all echelons of the infantry from the battalion commander down through infantry platoon leaders, as well as the nearby tank commanders. Our platoon leaders carry a supply of tracer ammunition which they pass out to infantrymen on the line for use as tar-



U.S. Army Photo

Btry. C, 21st AAA, 25th Inf. Div., gives support from M16 to infantry as they advance against the Chinese near Yang-su.



U.S. Army Photo

The 3rd Bn., 35th Inf. Regt., 25th Inf. Div., prepare to attack enemy-held hill north of the Han River as tanks and half-track quad .50 cal. machine guns of the 21st AAA AW Bn. (SP) pound enemy positions.

Silver Star

SERGEANT FIRST CLASS CHARLES M. BAMFORD, while a member of Battery D, 15th AAA AW Bn. (SP), distinguished himself by gallantry in action against an armed enemy near the Chosin Reservoir in Korea, during the period 29 November 1950 to 30 November 1950. On 29 November, when the unit was attacked by a numerically superior force, Sergeant Bamford, who was then Battery Mess Sergeant, lost his kitchen due to the enemy action. He then voluntarily assumed the task of assisting in bringing wounded men from their positions to the aid station and assisted in making the wounded more comfortable after they had been treated. In so doing, Sergeant Bamford exposed himself to intense enemy automatic weapons, mortar, and small arms fire on many occasions. On 30 November while aiding wounded men, Sergeant Bamford was wounded himself by enemy fire. Immediately after receiving first aid, he resumed his task of bringing in and caring for other wounded men, again exposing himself to the hazards of the heavy enemy fire. As a result of his repeated disregard for his own safety in going to the assistance of others he was wounded twice by enemy fire. Again, despite his three wounds, Sergeant Bamford voluntarily continued to assist and care for other disabled men until on 2 December 1950 he was reported as missing in action. His outstanding heroism helped save the lives of many men, lightened the heavy burden of the medical personnel and inspired his comrades. His gallantry in action reflects great credit on himself and the military service. x x x California.

platoon contact is normally by radio only. In the course of battle, tactical communication with infantry elements is maintained through use of SCR 300's or liaison with nearby tank elements. Fire missions, orders to shift or cease fire, and other instructions are thus received from the supported infantry commander by the AAA platoon leader who transmits these instructions to his guns by radio and/or hand or other visual signals.

AMMUNITION

EMPLOYMENT in the ground role results in sizable expenditures of ammunition. It is not unusual for four M16's to fire fifty thousand rounds during one



M16's readying to attack Changgo-ri.

engagement of a few hours duration. Ammunition resupply problems, if not carefully anticipated, can be troublesome. The problem is further aggravated by the inability to use trailers with M16's supporting infantry. We have found that trailers reduce the maneuverability of the track to such an extent that they are a hindrance and cannot be used.

Our approach to the ammunition problem entails three principles—conservation, a large basic load, and perpetual reserve stocks.

The conservation policy requires that four barrels be fired only in emergencies, against enemy attack or for saturation fire in the initial phase of infantry attacks. For normal firing two barrels are employed.

Each M16 carries a basic load of eight thousand rounds. This load is carried on the floor of the carriage.

Continual reserve stocks are maintained at regimental ASP's and at the battery headquarters. Regimental ammunition officers maintain a day's supply of from 60 to 80 thousand rounds. From this supply the AAA battery commander maintains a level of 25 to 30 thousand rounds. Batteries transport ammunition from the regimental ASP to platoon positions with two 2½-Ton Cargo trucks made available for this purpose by battalion headquarters. One truck works forward from the battery C.P. to platoon positions while the other works back to regimental ASP. When terrain or the situation requires M3's are used to shuttle ammunition from the truck at a rendezvous point to the gun positions.

M16 ADAPTED TO GROUND ROLE

THE M16, old World War II veteran that it is, has found new glory in Korean fighting. But as a ground support weapon it has several inherent disadvantages. Foremost among these is the lack of crew protection. Working in close support of the infantry brings our crew members within enemy small-arms range. The high silhouette of the weapons and its scant armor make M16 crews particularly vulnerable to enemy fire. It soon became apparent that unless steps were taken to reduce the vulnerability of our crews, we would suffer many casualties. When the battalion commander advised the CG, division artillery and the division commander of this problem, he

found staunch supporters for his desire that every effort be made to reduce this threat. The division ordnance officer was instructed to work with the battalion commander on the development of an



U.S. Army Photo

Light machine gun mounted to cover cab dead space area.

armor shield for the turret to protect crews from small-arms fire and shell fragments. In a matter of days a template was designed, a pilot model fabricated and attached to an M16 turret. The M16 was then put through road and turret tests to determine whether the added 200 pounds of the shield would adversely affect the turret drive mechanism. Results showed no adverse effects. The experimental shield was then shown to the army commander, who ordered that all M16's in the Eighth Army be similarly equipped as rapidly as shields could be manufactured and installed.

An inspection of our shields will attest to their effectiveness. Pocked with indentations from rifle and machine gun bullets, they have prevented many casualties and have done much to reassure exposed cannoneers.

Efforts to reduce crew vulnerability did not stop with the addition of weapon armor. Armored vests for crew members were also procured. These "flak suits" are worn by all crew members when in action and have proved to be lifesavers on several occasions.

In one respect M16 crew protection has been surprisingly good. Enemy land mine damage to vehicles has been extensive, accounting for total loss of ten M16's. In these ten encounters only two men were gravely injured.

The most serious injuries resulted from concussion and collision with vehicle fixtures. Indications are that two features of the M16 carriage are responsible for this protection. The armor plate naturally provides some protection. Mines

most frequently were detonated by front wheels, and the space interval between front wheels and crew undoubtedly further reduced effectiveness of mine explosions.

The mines, sometimes buried two feet, were of the wooden-box type, difficult to detect, frequently encountered on roads already swept by engineers and traveled over by considerable friendly traffic.

Another M16 limitation is the cab dead space area. To overcome this limitation we have mounted a light machine gun over the right windshield of each vehicle. Tripod heads from ground mounts were spot welded to windshield frames to provide vehicular mounts for the gun. These guns have been used to good advantage and are a decided morale factor for crews.

AAA'S ANSWER TO RED NUMBERS

IN the foregoing paragraphs we have reported how we performed our mission. Here is our statistical box score:

Period 26 January 1951 to 1 May 1951

Engagements: 78

Rounds Fired: 1,491,280

Casualties Inflicted: Certified killed—2,681. Estimated additional killed—4,060. Prisoners of war—31.

Casualties Sustained: Killed in action—2. Wounded in action 78. Vehicles lost due to enemy action—16.

Statistics, however, are cold and impersonal. The pride, zeal, valor and determination required to attain these objective ciphers are not too difficult to imagine. Perhaps it would have been fitting to single out individuals for spe-

cial recognition in this report. This would have been difficult if not impossible. For valor has been almost universal under enemy fire, and our operations have become almost routine now. To be sure there have been Purple Hearts and many awards for valor, and the battalion has been recommended for the Distinguished Unit Citation. But as a battalion we are most proud that there is a warm spot for the "Ack-Ack," as they call us, in the hearts of the doughboys of the 25th Division who from their top commander to the rifleman have been most generous in voicing praise for our performance and support; and we have full confidence in them and know that the fighting qualities, adaptability and initiative of these American fighting men will continue to answer any threat posed by the enemies' numerical superiority.

At War With the Half-Track

By Lt. Paul S. Vanture, Arty.

THE 21st Battalion, under its cocky, colorful commander, Lt. Col. Charles E. Henry, has established an enviable record since its arrival in Korea January 5, 1951. Dog Battery alone, since going into action in close support of infantry on February 16, 1951, is officially credited with over 1,500 enemy casualties inflicted during three months participation in General Ridgway's Operation Killer. Against Dog Battery's loss of one man killed in action and 17 wounded, this is a record that reflects nobly on the battery's tough, battle-wise commander, Capt. Raymond L. Snider, and the indomitable spirit of his men.

The 21st had arrived in the Far East a month previously when I joined it at Camp Zama, Japan, sporting new gold filled bars and as much professional experience in automatic weapons, self-propelled, as could be learned in a month's schooling at 40th AAA Brigade Headquarters at Hiyoshi. Despite the lack of any combat background, my



Lt. Col. Charles E. Henry.

confidence was bolstered by several factors:

First of all there was the over-all appearance of the battalion. The motor pool, where stood 64 M16's in powerful array, was a beehive of bustling activity. Motor stables were executed with a thoroughness and precision that approached a phobia. Then, too, there was a fierce competitive attitude exhibited between the batteries, the sections within the batteries, and even between squads, which can be a powerful attribute to the combat efficiency of any outfit. This competitive spirit was begun at Bliss (where

the 21st doggedly fought to capture any and all trophies worth having—such as D Battery's trophy for carbine marksmanship) and is, happily, still in evidence after four months in Korea. It was that healthy type of competition which caused a squad to work to gain the benevolent smile of an inspecting officer after he had frowned on their neighbors. Nothing was considered too trivial in which to excel.

There was a magnificent *esprit* among the men of the 21st which any combat commander would have envied. The men were eager, alert, and well trained and they were not allowed to stagnate. Their training was repeatedly reemphasized during their sojourn at Zama. We were also blessed with NCO's of top drawer caliber. Not less important was the discipline which added to the well-being of our troops. Having been in Japan longer I had witnessed the deleterious effects of soft occupation life on other U.S. units. While those units collected DR's by the hatful, the 21st's commander remained uncompromising to the rare ones that came to his battalion. In short, it was a combat ready battalion.

Lieutenant Paul S. Vanture is a graduate of the United States Military Academy, Class of 1950.

It has been said that the battle is the pay-off and it was on February 16, 1951 that Dog Battery met its ordeal by fire north of Pabalmak, Korea, near Hill 187. How half-tracks would be tactically employed in the close support role had been the subject of endless discussions in the BOQ's and squad rooms at Zama. Although many of us had a whistling-in-the-dark approach to the matter of tactics, we were sustained by our confidence in our units.

On the 15th, I was able to make a reconnaissance of 187. I found it to be a long ridge running parallel to our front. To the left flank of 187 loomed a much larger hill mass, separated from 187 by the main road running north through a cut between the two hills. The larger hill was the assigned objective of the British Independent Brigade, while 187 was to be taken by elements of the famed Negro 24th RCT. The inevitable rice paddy, crisscrossed with primitive, low stone fences, separated my observation post from Hill 187. I set to work making a sketch of the terrain while a British Centurion tank thundered away at my elbow, seeking to extricate a 24th RCT patrol pinned down by enemy small arms somewhere out in the paddy to my front. Although I was hearing my first shots in anger, the cool detachment of the British crew manning the tank was comfortingly contagious. The British officer with his head out of the turret kept his eyes glued to his field glasses, oblivious to the occasional sniper's bullet which whined in his proximity. He kept announcing, "Raise it a bit, old boy, I can't see them yet"—apparently addressing his gunner. At length the Centurion drew mortar fire and I lost no time in convincing myself my sketch was done to beat a hasty retreat.

Upon return to my assembly area I briefed my crews on the projected operation.

On the near side of the fence crossed paddy, away from 187, there was a ravine. My platoon, accompanied by medium tanks, was to proceed down a road bordering an icy stream parallel to the objective and come into firing position by 0900 hours. The infantry line of departure was actually to our rear, on a plateau above and across the stream. They would jump off at 0915, after we had laid down a 15-minute barrage.

"Road" is a loose term in Korea and at 0845 hours on the morning of the 16th

Silver Star

CORPORAL CELESTINO CHAVEZ, while a member of Battery D, 15th AAA AW Bn. (SP), displayed gallantry in action against an armed enemy near the Chosin Reservoir in Korea, on 30 November 1950. On this date, his M-19 twin 40mm gun carriage was defending a portion of a perimeter when the enemy began a "banzai" charge against the position shortly before 0300 hours. Corporal Chavez was struck and seriously wounded during this attack, but he refused to be evacuated to the aid station because there was no other man available to replace him. He stayed at his post voluntarily and despite his wound kept the weapon firing. When the enemy attack had been broken up by accurate and intense fire of the M-19, Corporal Chavez, weakened by loss of blood, collapsed unconscious and fell from the M-19 to the ground. He was then given medical attention and evacuated to the aid station. As a result of his heroic actions the M-19 was kept in action, the "banzai" charge was broken up, and the perimeter was kept intact at that point. The gallantry displayed by Corporal Chavez on this occasion reflects great credit on himself and the military service. Entered the military service from the State of New Mexico.

we found ourselves floundering down an ancient oxcart trail. At 0900 hours, under snow laden clouds, we unleashed a torrent of fire power for which the M45 is famous. The range varied above and below 1,000 yards and 187 flashed with a thousand incandescent lights as the slugs raked the landscape.

At 0915 hours the first friendly assault wave screened through us and out across the paddy toward their objective. At this time, too, we began to receive small-arms and mortar fire. The mortar fire was inaccurate; so, we were not forced to jockey our positions. The small-arms fire gained in intensity and shortly after 0920 a gunner at my position was mortally wounded, a bullet through his head. Although we were deeply grieved by this misfortune I noted the speedy dispatch with which he was replaced by an infuriated comrade, who now fell to his task with such a vengeance that I feared he would burn out all four barrels in a matter of minutes!

As the infantry reached the base of 187 we slackened our fire. We were aided in locating their forward elements by means of bright colored panels which they wore on their backs. Control of our firing line was rendered difficult by the incessant staccato din of 32 machine guns. Radios could not be heard amid such bedlam and I have often wished since that the turret be equipped with an interphone headset for the gunner, to better control his fire.

By high noon the objective was secure and a large Chinese force had been killed or routed back toward the Han River. The next edition of the 24th Infantry newspaper spoke proudly of the debut of a new secret weapon and with reverence told of the astounding fire power of the half-tracks. The readers were informed that Dog Battery had riddled the objective with some 112,000 rounds of ammunition, a record in anybody's league. From the compliments that flowed in from all echelons, we knew we now belonged on the team.

PART II

IN the preceding narrative I have described typical offensive action engaged in by my platoon of M16 half-tracks during the current Korean campaign.

After the initial action of February 16, 1951, we proceeded with the tank-infantry team cautiously to the south bank of the broad Han River. Here we set up a defensive line and waited patiently for the signal from higher up that would catapult us across on the new phase of Operation Killer.

In a mighty predawn barrage on the morning of March 7, 1951 Dog Battery joined Baker Battery of the 21st AAA Battalion in close support of the assault crossing. Capt. Jack Lary's Charley Battery supported the same crossing in another sector. Caliber .50 tracers spewed across the Han in a veritable Niagara of fire. It was on this day that the 25th Tropic Lightning Division, whom we were supporting, set a record for casualties inflicted and prisoners taken. From their positions on the south bank, the 21st added another superb job to its credit. The main part of Dog Battery was employed at the diversionary crossing site and was subjected to a bitter hail of enemy mortar fire from the Chinese forces dug in on the opposite bank. Col. Henry was present at that hot spot to observe and share its ferocity.

At the main crossing site I had a part of the 2nd Platoon linked in with the full strength of Baker Battery, commanded by Capt. Michael B. Kaminski. Outside of playing touch-and-go with a concealed self-propelled weapon on the Chinese-held bank, our action was without unfavorable incident.

The honor of having the first tracks across the Han fell to the redoubtable Capt. Kaminski and his Baker Battery.

Lt. William O. Keeling crossed the same day from the diversionary landing with a section from Dog Battery's First Platoon. Two nights later I was ferried across with two sections on rubber engineer rafts.

A series of sharp engagements steadily took us north, pressing against the Chinese Communist forces building up north of the 38th Parallel for their projected spring offensive. Our route took us along the historic invasion corridor through gutted Uijongbu. I lost two vehicles in mine explosions south of Uijongbu. I was not the only one suffering from these frightful weapons, however, as my tanker friends and assorted vehicles ranging from jeeps to 2½-ton trucks were also incurring losses in the vigorous push.

Short of latitude 38° 10' the Chinese grew impatient with our insistent crowding, and on the night of April 22nd, started a whopping counterattack. I was shortly to learn the hard lessons of what our British allies call the gentle art of retreat.

We pulled back across the hard fought Han Tan, a small tributary of the Imjin, and it was there on the south bank on the night of April 23rd that I found myself with the 2nd Platoon in a hasty defense of two adjacent valleys separated by an intervening, cross-compartmented ridge. The defense line had been hastily set up and did not conform with the best AW, SP tactical doctrine which calls for infantry protection of the half-tracks at night.

At approximately 0020 hours on the 24th of April a seven-man Chinese patrol reached the line of my tracks. An alert squad leader, standing guard, cut down three of their numbers with his carbine, and allowed us the time to crank up power chargers and get the turrets in action. The patrol was apparently the vanguard of a larger force travelling close behind. What ensued was wild and woolly.

We remained in position and gave battle at close quarters. Eventually the attacking Chinese infiltrated around and behind us and we began to receive small-arms fire from all directions. Due to the fact that we were firing blindly in the inky blackness, any estimate of the casualties we inflicted upon the oncoming attackers would only be guesswork, but I feel confident that we gave a good account of ourselves. Our position became

Silver Star

SERGEANT FIRST CLASS WALTER T. CHAPPELL, RA 16 019 977, Artillery, United States Army, while a member of Battery A, 15th Antiaircraft Artillery Automatic Weapons Battalion (Self-Propelled), distinguished himself by gallantry in action near Sogu-ri, Korea, on 17 November 1950. On this date, Sergeant Chappell was in charge of an automatic weapons section attached to Company B, 17th Infantry, for close ground support. At approximately 0950 hours the column came under heavy enemy fire from well hidden automatic weapons and small arms positions. An infantry soldier about one hundred yards to the right of Sergeant Chappell's M-19 was wounded. As the wounded man started crawling towards the road, he received heavy enemy sniper fire. With complete disregard for his own personal safety, Sergeant Chappell instantly leaped from his vehicle and ran to the assistance of the wounded man and with the help of a comrade carried him through the heavy enemy fire to safety behind the M-19. This action undoubtedly saved the life of the wounded soldier. Sergeant Chappell's display of gallantry on this occasion reflects great credit on himself and the military service. Entered the military service from the State of Illinois.

more untenable as the Reds added mortar fire to the attack and began lobbing grenades at the tracks.

Inspection by daylight the next morning was to reveal how fortunate we were to escape injury, for the half-tracks bore assorted gouges, dents, and bullet holes from the encounter. At the end of twenty minutes I became convinced that friendly units to my rear did not fully realize the seriousness of the engagement and I therefore gave the command for a short withdrawal to clear the infiltrated area. Fearing that these infiltrators would pick off my cannoners from the rear and negate all our good efforts, I ordered the right section to move back and cover, by fire, the withdrawal of the left. This was accomplished without a hitch, for which we were indeed grateful. Possibly it also served to confirm the old maxim about fire and maneuver.

Our withdrawal was approximately 250 yards in extent and from our new vantage point we continued to rake the front with fire. Shortly we were joined by reinforcements in the form of an infantry company. Thus bolstered, we advanced back into the dark valley 50 yards and continued firing. By now the situation was becoming apparent.

The attack was on a fairly large scale and as far back as the regimental CP interest began to be evinced. Further, our fire had apparently blunted the attack in our valley (the left valley) and diverted the enemy effort cross compart-

ment to the right valley. Across the latter was strung the other half of my platoon, four tracks, commanded by the very capable Platoon Sergeant Joseph W. Weeks of Wauchula, Florida. Soon Sergeant Weeks was hotly engaged.

As his battle began the sergeant received welcome support from a friendly infantry machine gun on the ridge to his left. At length, however, it was overrun and its fire then turned on the tracks under Weeks' command. The indignant sergeant brought his concentrated fires to bear on the machine gun and it was heard from no more!

The company of infantry occupying the intervening ridge between the valleys had previously joined the fire fight and shortly found themselves in a distressing situation. Their ammunition was running out and all attempts to resupply them failed. At about 0300 hours, as a consequence, we got the order to withdraw with the infantry.

In a night marked with courage the men of Dog Battery now added an heroic, if slightly ludicrous, act. At the junction of the two valleys, perhaps 1,000 yards from the onrushing Chinese, was Dog Battery's CP, vacated only a few hours before. Because of the suddenness of the attack our CP had to be vacated quickly or risk capture. There still remained seven one-ton trailers in the deserted CP area for which there had been no available prime movers. Normally our trailers were shuttled to the new CP location by the few trucks available, working in relays—a tedious job at best, but the half-tracks were usually too busy in their battle mission to be used as prime movers.

A few minutes previously, Sgt. Weeks had retired from his valley on the right, the infantry and tanks having preceded him. As he left the valley he sprayed it, letting them have all four barrels. Weeks' guns were still hot as he joined me at the CP, hitched up the trailers, loaded up as much of the infantry as we could safely carry on the tracks, and headed due south!

We proceeded to a point near the 38th parallel, disembarked our infantry at a reorganization point, and then accompanied the tanks back a few miles north to a blocking position. It was now nearing daylight and we learned that our troops were hastily organizing a counter-attack in which we were to participate.

We proceeded back at daylight to the

mouth of the valley where the nightmarish action of a few hours earlier had occurred. The next 36 hours, as I look back on them, have a totally unreal aspect. The valley was literally crawling with the Chinese and they brazenly exposed themselves on the ridges and in the draws. With zeal we applied ourselves to the task of eradicating them whenever they appeared. The day was bright and sunny and our air, artillery, and tracks hammered the oncoming Reds mercilessly. The carnage among our attackers that day, even from my limited point of view, was fantastic.

Far to the east of me, my coplatoon leader, 1st Lt. William O. Keeling, and his First Platoon were also having a field day. We shared a common radio channel and the transmissions which I overheard from their stations furnished an account more gripping than anything I have heard on the suspense radio programs.

Darkness, combined with the "human sea" tactics of the Chinese, was more than our inadequate forces could intelligently risk, therefore at dusk we again received the withdrawal order. The half-tracks hung around to shoot up the territory after friendly elements had cleared out. We then beat a hasty retreat suffering a parting volley of small arms from the Chinese as they moved swiftly into the area we had just vacated.

A few miles down the road my command track went off in a ditch and overturned in the darkness. It had to be destroyed to avoid capture. I transferred my seat to an M16 and we proceeded a few miles more and went into blocking position, protected by a platoon of combat engineers. It was here that I received orders to remain in position until the entire RCT broke contact with the enemy and passed through my position.

The column seemed interminable as it passed me—and the effect was heightened by the sounds of the famous Chinese bugles in the pitch blackness somewhere out to my left flank!

Keeling, with the First Platoon of tracks, was a welcome sight as he passed my position marking the tail end of the column. The engineer platoon had departed and with a sigh of relief I ordered Second Platoon to saddle up and tack onto the column.

My nemesis, the half-track, never performed so well as it did that night. We proceeded, under blackout conditions, over something which they barely call a road even in Korea! My drivers removed the windshields to serve a double purpose: it afforded better vision and the icy blast kept them awake (they had not shut their eyes for 48 hours).

Ambush was imminent as we continued the tense journey. Another half-track went off the road and overturned. Again the thermite grenades were used and a spectacular light spread over the lonesome valley. The rest of the convoy by now had far outdistanced my last two tracks. We lost valuable time destroying the track, and again when we stopped to pick up two wounded men who stumbled onto the road from the darkness beyond and stopped us. These men were personnel from a regimental CP which had been overrun. It is interesting to note that the hood of the track makes an ideal litter space. We cushioned our patients thereon and covered them with blankets. The heat radiating from the engine kept them fairly comfortable for the remainder of the journey.

We drove through the night without incident. At around 0800 hours the next morning we met an oncoming ambulance and transferred our wounded (which included one of our own, injured

when the M16 overturned).

Somewhat later we arrived at our new battery CP, steam hissing from the hoods and ourselves in a state of exhaustion. Safely bivouacked, I stumbled around the area congratulating Dog troopers on what I considered to be an extraordinary feat of nighttime operations for half-tracks, watched most of them go to sleep in any position which best afforded it, and myself sought out an empty half-track cab to slip off into a heavy, dreamless snooze.

This ends my chronicle, considerably abridged, of my platoon's support role. In retrospect, I can assure you that the men and the M45 mount performed magnificently; although the half-track has been the recipient of many of my curses and earnest supplications, that ancient work horse, I confess, has earned my grudging admiration for a job adequately performed under the most difficult circumstances of terrain and weather. It is true, however, that there were some missions we were unable to perform simply due to the limitations of the half-track's mobility and lack of crew protection. A full-track vehicle with more turret armor, in the opinion of many of us, would have enabled us to do our job in a better manner.

We have received compliments from the rank and file of our infantry who are doing their customary valiant job in this hectic, dreary campaign. Of all these bouquets I think my favorite was given to me indirectly one night when a dough-foot wandered over to his neighbor's foxhole alongside which a half-track had been dug in to strengthen the defense, peered at the track's silhouette, and remarked to his buddy: "Man! Ef ah had all that fiah powah next doah me, you wouldn't heah me do nothin but sno all night!"

M16's In The Attack On Changgo-ri

By Lt. Richard S. Craig, Arty.

AT 0800 hours on the morning of March 29, 1951, four tanks, two platoons

of infantry and my four M16's of Battery C, 21st AAA AW Battalion (SP), started up the road leading to the Red held town of Changgo-ri, ten miles south of the 38th Parallel. Our mission was to attack the left flank of the Chinese force which was giving heavy resistance to the

27th Infantry Regiment on our left.

The small task force halted just south of the town. The infantry captain, commanding, was ready to give the order for the attack on the town and the horse-shoe shaped ridge which overlooked it from the north. As we assembled to re-

Lieutenant Richard S. Craig is a graduate of the United States Military Academy, Class of 1949.

ceive our final instructions from the task force commander, an Air Force spotter plane that had been observing the enemy's activity dropped a message stating that the Reds were moving in considerable force to the ridge surrounding the town.

The captain issued his orders. The first platoon supported by the tanks was to attack the lower loop of the horseshoe ridge. The second platoon and my M16's were to proceed up the road into the town. There, they could give fire support to the first platoon. As soon as the first platoon took its objective, it was to give fire support to the second platoon in a frontal assault on the remainder of the ridge.

At 0930 hours, the first platoon moved out, and the second platoon, with M16's, started into the town as planned. Suddenly the whole force was subjected to enemy mortar fire. As we moved into the town, the intensity of the mortar fire increased and was supplemented by heavy machine-gun and rifle fire from the ridge. The first objective was taken very quickly, and we could now see the first platoon plainly at the top of the lower loop of the ridge. Meanwhile, the M16's, in a widely dispersed formation, had moved up within sight of the enemy. The Reds were well dug in, and the ridge was honeycombed with dugouts, trenches and foxholes.

The M16's took the enemy under fire. Most of the fire was directed against observed positions, although the entire enemy held portion of the ridge was sporadically swept with fire. At this point, a decided decrease of intensity and accuracy of enemy small-arms and mortar fire became apparent. During the course of this firing, the task force commander contacted the M16's and tanks over the SCR 300's indicating special targets to be fired upon.

Silver Star

MAJOR KENNETH L. BOULLION, a member of Headquarters, (then Battery B), 82nd AAA AW Bn. (SP), 2nd Infantry Division, displayed gallantry in action against an armed enemy on 2 September 1950 in the vicinity of Chang-yong, Korea. On that date he was an artillery liaison officer attached to a rifle battalion. The battalion's command post was subjected to heavy enemy mortar and small arms fire directed from a ridge to its immediate front. During this intense concentration of hostile fire he took command of an antiaircraft firing vehicle and directed its crew into a position from where it could return the enemy fire. Constantly exposing himself to withering enemy fire, he was able to direct such devastating fire upon the enemy-held ridge that approximately 30 enemy soldiers were killed and the remainder routed. His heroic and quick-thinking action undoubtedly prevented many casualties to the personnel of the command post. The gallantry displayed by Major Boullion on this occasion reflects great credit upon himself and the military service. x x x North Dakota.

It is simple for the M16 squad leader to point out targets with the caliber .30 machine gun which our battalion has mounted on the M16 to cover dead space over the cab. Loaded with a high percentage of tracer ammunition, this gun is an excellent means of outlining fields of fire and pointing out targets for heavier machine guns.

Meanwhile a brief artillery barrage had been placed on the ridge. Now was the time for the second platoon's assault. Two M16's moved out with the maneuvering platoon to deliver supporting fire on the enemy positions on the lower portions of the ridge, while the remaining two tracks continued to give covering overhead fire on positions higher on the ridge. In the meantime the four tanks had left the first platoon and had joined us in support of the assault.

As the tanks and M16's moved forward, there was an almost simultaneous explosion beneath one M16 and an adjacent tank. An enemy soldier in a nearby foxhole had pulled a string which deto-

nated an explosive charge under the tank and the M16. Although badly shaken up, no one was seriously wounded. The vehicles, however, were knocked out of action.

As the assault developed, the enemy began to leave their foxholes in an attempt to escape. The fleeing Chinese presented an ideal target for the M16's and were quickly annihilated. As the attack progressed, the two rear M16's were brought up closer to increase the effectiveness of their fire. By this time the Reds were beginning to retreat in large numbers. Huddled in groups of from three to thirty men, it was easy for the M16's literally to cut them to pieces. A doughboy, apparently impressed by the M16's destructive power, said after the action was over, "Every time I was about to get me a gook, one of you Ack Ack guys would nail him first."

Changgo-ri and the horseshoe ridge was now ours. The assistant division commander, Brigadier General "Mike" Michaelis, who had been watching the action, told the task force commander that it was the best example of a coordinated attack he had seen in his lifetime.

This action points out emphatically the capabilities of the M16 in ground support work. Its deadly fire power is effective against troops in foxholes and bunkers as well as troops in the open. Of the 250 enemy killed in this action, the M16's received credit for 150 who were found in their dugouts shattered by M16 caliber .50 fire. In addition, the lives of many friendly troops were undoubtedly saved. A continual rain of more than 50,000 rounds of caliber .50 bullets, fired in this engagement, kept the enemy pinned down and prevented him from firing. Once again the M16 proved its worth and slugging ability to the infantry.

Notify the Journal of Your Address Change



LETTER FROM A SAILOR*

By Dana Burnet

U.S.S. JAMESTOWN (CL. 100)
CARE OF FLEET POST OFFICE
NEW YORK, NEW YORK

At sea, 15 Feb. 19—

DEAR MAMA:

Well it is like somebody died aboard this ship. You will see a guy chipping paint or polishing brightwork on deck and he will look up at the meat-ball flying from our radar mast, you know that is the pennant that shows we are the champ of our class, the light cruiser class, well the guy will look up at the meat-ball and you would think somebody died if you could see his face. Then he will say a word I will not write in no letter to you Mama, but it is a word you wash my mouth out with soap for one time when I am six, maybe seven years of age. I guess six because it was that year Papa died and we moved from East Brooklyn to Harlem, the year I start in school and can still remember how the soap taste.

Well you will want to know what I am talking about somebody died aboard the *Jamestown*, nobody died least of all me. I am O.K. and still gunner's mate 3/c in this ship. Like I wrote you from Villefranche, am in charge of maintainance, oiling, repairs etc., on the No. 1 5-in. gun mount, the best gun in the fleet in our class, the CL. class, as the ship got

high score in the games we had in the Med. and our gun crew got high score on the ship. That is among the 5-in. gun crews. Oh before I forget, when we are lying at Gib., that is short for Gibraltar Mama, some British brass come aboard and the Old Man is showing them the ship and they come to where I am working in my gun mount. Well it is pretty dark in there and nobody see me as I am sort of scrunched down behind the gun and I hear the Old Man say, "This is our best 5-in. gun mount. A colored boy named Williams is in charge of maintainance here."

So then one of the visitors says that is very interesting because he thought we had a race question in the States. "There is no race question in this ship," Capt. Palmer says and I wish you could of heard the way he said it Mama, so quiet, but like his voice would cut steel. Well I never thought much about the skipper before, he was just another skipper to me but now I felt like standing up and saying, Sir, that is the truth. But did not make a move to let him know I was there, as I did not want him to think I heard him praseing me. I can do my job without no prase from the gold braid, much less the skipper, but he is the best skipper in the fleet, all the guys say so, not just me Mama.

He is the one I wrote you took command last Nov. when we are at Istanbul, and you do not want to think he is soft if you are going up to mast, like one old C.P.O. said, Capt. Palmer will give you the brig if you spit to windward. But is always fair, and a pretty good guy for an officer, the best four-striper in the fleet and got the Navy Cross in the war, so no wonder we win the meat-ball under Capt. Palmer. Well enough about Capt. Palmer, but he was skipper of a tin can in the 2nd battle of the Filopine Sea when the Japs caught our baby flat-tops with their heavy stuff and our destroyers had to turn into the Japs with a torpedo spread and Capt. Palmer was in com-

mand of the lead destroyer. His can took a shell in her engine room and Capt. Palmer got a shell fragment through his neck but stayed on the bridge and after the Japs turned back he made emergency repairs and brought his can back to Leyte gulf almost sinking and holding his neck wound together with his fingers. There is this old C.P.O. named Yancey in the *Jamestown*, an old guy about 35 that was with Capt. Palmer in the destroyer and he told me all about Capt. Palmer. But I start to write about what happened to the ship not the skipper, but no accident happen so don't worry Mama. Anyway I will be home most as soon as this letter, as I will get liberty in Boston and cannot mail this letter till Boston, but felt like I had to write somebody what happen to the *Jamestown* so why not you Mama.

Well not to keep you waiting, we are three days out of Gib. heading for Boston, a foul morning but all the guys feeling good, thinking of liberty, their girls at home etc. What I mean everybody was feeling like sailors always feel when the course is laid for home, when all at once the siren sounds general quarters and we all go to our places wondering if something has blown up back in Europe or the Med. that will take us full speed back to the Med. Then here comes the Old Man's voice over the squawk-box, "Now hear this." Well it is a radio he just got from Washington and decided we better hear the news from him than to get it through the scuttlebutt. Well it is the news I should of told you to start with, as I guess you are all mixed up by this time, but here it is, they are going to de-commission this ship as soon as we get home. They are going to put the *Jamestown* in moth-balls and break up this crew, the best in the fleet and they will never get another crew like this crew I don't care what anybody says even the President! But it don't seem to count in Washington that we are the champ in our class.

They are knocking out the champ,

Influenced more by his experience as editor of *The Cornell Widow* than by the law degree he had earned, Mr. Burnet turned to writing as his professional career. After an apprenticeship as a working newspaperman, he became a regular contributor of short stories to *The Saturday Evening Post*. A number of his stories have become popular movies, one of them being Hollywoodized three different times. He is nearly as well known for his writing for Broadway. Mr. Burnet has contributed a moving sketch to this issue of the Proceedings. Although the Proceedings does not normally publish such sketches, an exception in this case seemed well justified.

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and it is because of economy, the Old Man said. Because the government cannot afford to keep such a big fleet at sea. Mama, we did not have such a big fleet in the Med. but I could not help thinking what our fleet in the Med. meant to the people of Istanbul, Athens, Lebanon, Crete, Tangiers, Naples, Venice, Villefranche, Nice, Cannes and everywhere we showed the flag. You would not believe how the people turned out for us, cheering and waving their own flag and making it a holiday when we docked or just coming to the shore of the harbor where we are anchored and you could see all the faces looking at us, men women and children just standing there looking at our ships like it made them feel safe just to look at our ships. Well to get back to the Old Man, he made a speech which I do not remember all of it, but a wonderful speech, all about how sorry he was, but in a country like ours the military men do not make the policy, it is made by the civilians in the government, and that is how it should be, what we had to do was to carry out our orders and keep up our *Jamestown* spirit to the end. He told us he was proud of us and the ship and would never forget us or the ship, it is the finest command he ever had and it is like saying goodbye to your best friend to leave us and the ship. But we must not let down in our duties or let him down or the Navy, but show the whole country we are the best ship in the fleet right up to the end and keep the meat-ball flying right up to the end.

So then we are dismissed and Mama you never saw so many guys all looking the same way like their best friend had died or something. Well maybe it is economy, I don't know about that though from the news in the papers we get aboard ship there is plenty of money at home to spend on other things, everybody got to have a new car and what is spent on pleasure, and the ladies all having their beauty treatment and the government paying millions for food and then dumping the food. But I do not

know about such things, am only a gunner's mate 3/c in the best ship in her class, and now they are going to retire her from service, but cannot help wondering if the people at home know what it is to retire a ship.

They think it is just a piece of machinery, a steel hull and superstructure, gun-mounts along the deck, an engine room below, etc., all machinery, all steel and electricity and steam. But it is more than machinery to the men in the ship and I can't tell you what it is Mama. But it is something that takes a lot of time and work to build up and when it is built and you break it you have done more than just lay up a ship. You can call it teamwork, but it is bigger than that, it is too big for me to put in words, as you know I never even finish high school, but I think the thing I am talking about is worth more than all the ships and the planes and the guns and even the hydergen bombs we can turn out in the U.S.A. I think we can have the best ships and the best planes etc., we can have the most science and the biggest bombs, but if we havent got what I am talking about, where every man is for all the men all the time, like where a man is in a ship and will do his job even if he is the only one left alive in the ship, why if you do not have that you might as well not have the other, the machinery.

Mama we are at war with these Russians. Maybe the people at home don't know it but every man know it that has been to the Med. with our fleet, and I hope it will never come to the shooting part or the terrible hydergen part which must be terrible, but no matter what happen we got to be strong and cannot be strong without the thing that Capt. Palmer meant when he spoke about the *Jamestown* spirit. You say that to a landsman, it does not mean anything, or maybe he will think it is Navy crap, excuse me Mama, to talk about the spirit of a ship, but it is as real as the rivets in her hull, it is why the white boys in my

gang will take orders from me a colored boy and not think anything about it and it is why we win the meat-ball. So I wish the people at home could know that when they de-commission a ship, they are breaking up something that cannot be put into moth-balls or wrapped up in cellopane to take out again whenever it is needed.

After noon chow, I was on deck and I saw Yancey, the old C.P.O. I told you about, the one that was with Capt. Palmer in the destroyer in the war. He was standing aft by the catapult looking up at the colors, not the meat-ball this time but the American flag flying at the gaff. So I says to him, "How about it Chief?" And he looks at me and says, "Ay, tear her tattered ensign down," and I thought he has gone nuts as the ensign is no more tattered than I am. So I left him standing there, but that night I ask Lieut. Amery, that is on the Cruise Log Staff, about what Yancey has said, and he told me it is the first line of a pome by a civilian named Mr. Oliver Wendell Holmes, that was written about the old frigate *Constitution* when they were going to break up the *Constitution* and the pome got the people all stirred up so everybody wrote to their Congressman and gave money to save the *Constitution*.

Well I do not think any pome will save the *Jamestown* but could not sleep that night for thinking about the ship, and all the good guys in the crew that will never be together again and the line of that pome kept running through my head. I could see the old Chief standing on deck looking up at the colors and hear him saying, "Ay, tear her tattered ensign down."

So that is all the news I got to tell you Mama, and will see you soon and be glad to get home, but cannot help wondering if the civilians in our government know what they are doing. Well that is not for a Gunner's Mate 3/c to say, but only hope to God they know what they are doing.

Your loving son,

CHAS. WILLIAMS



145th AAA AW BATTALION (SP) HOMESTEADS IN HOKKAIDO

By Col. Riley E. McGarraugh, Arty.

MEMBERS of the Famous Forty-fifth Infantry Division, Oklahoma National Guard, are following in the footsteps of their forefathers who blazed trails in Oklahoma and Indian Territory as the western part of that state was known in early days. This proud outfit which covered itself with battle honors in World War II, beginning with the landing in Sicily, is now pioneering in the wilds of Hokkaido.

Again their mettle will be tried as they work and adapt themselves to this sparsely populated, coldest, most northerly of the four large islands which constitute present Japan. Even today the primitive Ainu people of this region still celebrate their annual bear dances using live cubs from the mountains.

The 145th AAA AW Battalion was activated as an organic part of the 45th Division in March 1949 and attended its only summer camp that year. It was called to active service at Camp Polk, Louisiana, September 1, 1950, where basic training was completed. The AAA battalion was later separated from the division, going to Fort Bliss, Texas, for specialized training and service practice.

While at Fort Bliss the Thunderbirds were attached to the 102d AAA Brigade and received added support from the AA Center. Thus the battalion was able to get in much valuable experience. The men from the 145th did well on the desert ranges north of Bliss and returned with good scores for a unit having had no previous antiaircraft firing.

Where are the boys from? Headquarters and Headquarters Battery come from Pawhuska, Oklahoma—located in the Osage Indian Nation which is famous for its oil and cattle production. Baker Battery is from Fairfax, also in the Osage Nation. Able hails from Nowata, Charlie calls Vinita home and Dog from Miami. The latter three batteries named are from what is known as the Grand

Lake area of Northeastern Oklahoma. Present new men who have been added come from various parts of the United States.

The battalion is commanded by Lt. Col. John S. Wilkes, a regular army officer who spent four years in the Pacific Theater during World War II. The executive officer is Major John B. Spence of Pawhuska, Oklahoma.

Battery commanders are: Headquarters Battery—Capt. John L. Dahl of Barnsdall, Okla. Battery A—1st Lt. Donald W. Duncan from Miami. Battery B—1st Lt. Earl W. Lamb of Nowata. Battery C—Capt. Clell W. Babler from Vinita. Battery D—Capt. Joseph Breane of Miami.

Near the end of February 1951, the Thunderbird Division, commanded by Major General James C. Styron, received alert orders for overseas. This alert caused the partially completed AA training program at Fort Bliss to be dropped while all personnel immediately started working to complete their POM requirements. Each man was granted a ten-day leave and returned in time to start on one of the softest touches any army man ever had.

The battalion entrained from Fort Bliss on a twenty-five-car special and each man had an individual Pullman berth. Messing was marvelous; three diners attended and not a KP was "volunteered" for the trip. Pulling into the port of New Orleans, the men barely had time to look over the French Quarter until they were again loaded aboard ship.

Again their luck held! They ascended the gangplank of the U.S. Navy's ship *General Simon Buckner* which is a near-luxury liner used normally for transporting the dependents of servicemen across the Pacific.

LIFE was both busy and interesting during the entire trip. Food was good and a variety of entertainment was offered. Despite bad weather and rough seas, much training was carried on during the twenty-eight days' crossing. A surprise stop on the Pacific side of the Panama Canal was a highlight. There the Caribbean Command extended the courtesy of the Naval Base for an evening and a top-notch band played during the ship's arrival and departure.



Lt. Col. John S. Wilkes visits his Headquarters Battery area.

Long ago some philosopher aptly remarked that the one thing which can be depended upon in life is change! On a chilly April morning the outfit landed in a southern Hokkaido port. Snow still patched the mountains and occasionally a smoking volcano was visible.

The following day they proceeded to their new home. At first it was a great disappointment since most of the area was still in the raw. Division headquarters and one combat team were located at Camp Crawford. Here they were well housed thanks to the efforts of General Swing and members of the 11th Airborne Division who had labored to make

this the nearest-to-Stateside post in all of Japan. The balance of the division had to design and carve out their first home in the Far East.

ENTHUSIASM was not lacking and no time was wasted. An area of Camp Chitose, which is commanded by Col. Robert J. Martin, Artillery, had been chosen and giant dozers began pushing out the scrub timber growth. Underneath, a porous volcanic ash surface was found and this proved excellent material for the drainage of an ideal camp site. Chaplain Russell T. Rauscher of the

145th Battalion personally supervised the building of his outdoor church in the wild woods. He had some difficulty in explaining to the Japanese operator of the bulldozer what he wanted until he mentioned he wanted the area cleared and level like a baseball diamond, then the operator caught the idea with enthusiasm. In a short time General Hal Muldrow, Division Artillery Commander, found himself commanding a sizable tent city.

In May, training was in full swing and the 145th AAA Battalion looked forward to service practice and combined training problems.



CREW PROTECTION ON M16's

By Lt. Col. Walter Killilae, Arty.

IN October 1950 the 82d AAA AW Battalion recommended that additional crew protection be provided for the cannoneers on M16's.

Subsequent action verified the need for it—specifically the action called Massacre Valley northwest of Hoengsong in February. During that action six men were wounded while acting as cannoneers on one M16 and four men were wounded on another. Wounded men in that action meant lost men, unless they were able to remain on the vehicle because the unit was engaged in a retro-

grade movement through an enemy fire block.

In March the 702d Ordnance Maintenance Company, 2d Infantry Division fabricated and installed some shields for trial. Within a month more than half of the M16's in this unit were equipped with shields. All except the first few were manufactured by ordnance shops in Japan and designated as T16 Gunners Shields.

No difficulty has been experienced with the shields in action against ground targets. Since this unit has engaged no airborne targets, no conclusions can be drawn in that field except to state that the added weight of the shield (800 pounds) may place excessive strain on the "V" belts when engaging high-speed aerial targets.

Gunners and cannoneers operating behind the T16 shield do so with greater confidence even though the protection provided is only ¼-inch armor plate and will stop only small-arms bullets of a nonarmor-piercing type.

The wings of the shield can be folded when in a traversing position.

Recent combat action by this unit during May has shown the advantage of these shields. They have successfully protected cannoneers from grenade and mortar fragments as well as small-arms and automatic-weapons fire. The only disadvantage has been a slight warping of the outer wing when hit by mortars which limits the traverse considerably. This can be corrected by the use of a hammer to straighten the warped portion.



New shield mounted.



Manning the weapon behind protective shield.

"NEW LOOK" FOR M16's

By Capt. George H. Worf, Arty.

CANNONEER casualties in the Korean conflict mounted to such an alarming rate, due to small-arms ground fire, that something had to be done about it. That "something" is the new bat wing armor that was approved and adopted in the X Corps last March.

707th Ordnance worked overtime in assembling and welding this armor plate to the M16's of the 15th AAA AW Battalion (SP).

Made of $\frac{3}{8}$ " armor plate and weighing 500 pounds, this added protection has introduced several problems and brought forth various reactions from the personnel most concerned—the cannonneers, gunners, and squad leaders of the M16's.

Pro:

1. There is protection for the M16 crew. Several bullet scars on the armor attest to this fact.

2. There is an increase in morale on the part of the cannonneers, just knowing there is armor protecting them.

3. There are less casualties resulting from ground fire.

Con:

1. This added weight, concentrated on the forward portion of the M45 mount, may burn out the constant-speed motor. It has not yet in three months of use.

2. The rate of traverse and elevation is considerably slower—a major factor, in considering air targets.

3. The center shields, in battle position, limit gunner observation to such an extent as to be impractical against aircraft, and difficult for rapidly changing from one ground target to another.

COMMENTS: FROM A BTRY., 15TH AAA AW BN. (SP)

Cpl. G. Cornwell, artillery mechanic:



Without protection: Cpl. Billy Baker, Sgt. Herbert Barker, Pfc. Charles Moher and Maurice Rogers with Cpl. F. Barton.

"I don't like it. It wears the belts out. They have to run the power charger constantly to keep the batteries up. I have to take all ammo chests and spare barrels out to work on the turret, because of the way this armor is shaped."

Pfc. H. McDonald, cannonneer: "We got protection now, but when we have to use a lot of ammo in a hurry—we can't get to all the chests. The new armor blocks off a lot of them. Especially when we fire at fixed targets and don't traverse much."

Pfc. T. L. Humphries, cannonneer: "There's a bullet gash right where my head would have been, if we didn't have this new armor. Do I like it?"

The consensus throughout the battalion is that the new armor is "a" solution, but not "the" solution.



Armor in folded position: Cpl. Homar A. Mandrell, Sgt. Stanley E. Mowery, Pfc. Martin Schaffer, Emray Wrobel and H. Barry.

Korea Awards Made At Bliss

A Silver Star and two Bronze Stars were formally presented to Fort Bliss personnel in ceremonies held on Noel Field at the Post on June 15. All were for service in Korea.

Corporal Theo H. Lee, of the Medical Detachment, 4052nd ASU, received the Silver Star in recognition of his service with the 25th Infantry Division in Korea. Although seriously wounded himself, he continued to give aid to, and evacuate wounded men under fire until ordered into a vehicle to be evacuated with others.

Master Sgt. Garland D. McMillan of Headquarters Detachment, 1st Composite Group, was awarded the Bronze Star with V for meritorious service with the 1st Cavalry Division. He was assistant communications chief and "was instrumental in providing necessary wire communications for the division artillery even at times when as many as seven field artillery battalions were attached to the division."

Lt. Col. William Lucinski of the 4052nd ASU received the Bronze Star for service in Korea as commanding officer of the 8069th Replacement Battalion. In this capacity he was responsible for the receipt, processing and forwarding of large numbers of replacements to combat units of the Eighth Army.

Brig. Gen. Frederic L. Hayden, Commanding General of the 38th Brigade, made the formal presentation of the decorations.

Medal for Col. McGarraugh

Maj. Gen. William F. Marquat, USA, Antiaircraft Officer, Far East Command, recently presented the Legion of Merit Medal to Col. Riley E. McGarraugh, Executive Officer of the Antiaircraft Artillery Section, GHQ, FEC.

During the period 25 June to 2 Nov. 1950, a citation states, Colonel McGarraugh was responsible for coordinating the commitment of AAA units to Korea and for deployment of remaining units to strategic locations in Japan and Okinawa.



HONOR ROLL

Original Honor Roll

88th AAA Airborne Bn
Maj. Thomas F. Penney
228th AAA Group
Col. D. W. Beheha, Jr.
107th AAA AW Bn (M)
Lt. Col. T. H. Pope, Jr., S. C.
305th AAA Group
Col. John S. Mayer, N. Y.

Separate Commands

Army AAA Command
Maj. Gen. W. W. Irvine
Third Army Training Center
Brig. Gen. C. H. Armstrong

Brigades

35th AAA Brigade
Brig. Gen. Homer Case
40th AAA Brigade
Brig. Gen. James G. Devine
47th AAA Brigade
Col. G. C. Gibbs
103rd AAA Brigade
Brig. Gen. R. Y. Moore, Conn.
107th AAA Brigade
Brig. Gen. J. W. Squire, Va.
105th AAA Brigade
Brig. Gen. A. H. Doud, N. Y.
109th AAA Brigade
Brig. Gen. Julius Klein, Illinois
111th AAA Brigade
Brig. Gen. Chas. G. Sage, N. Mex.
112th AAA Brigade
Brig. Gen. J. W. Cook, Calif.

Groups

10th AAA Group
Col. W. H. Hennig
11th AAA Group
Col. W. B. Logan
19th AAA Group
Col. H. P. Gard
97th AAA Group
Col. J. T. Wrean
200th AAA Group
Col. C. M. Woodbury
202nd AAA Group
Col. J. W. Anslow, Illinois
204th AAA Group
Col. J. Barkley, La.
207th AAA Group
Col. G. T. Stillman, N. Y.
208th AAA Group
Col. H. S. Ives

212th AAA Group
Col. J. A. Moore, N. Y.
214th AAA Group
Col. J. G. Johnson, Ga.
216th AAA Group
Col. W. E. Johnson
218th AAA Group
Col. V. P. Lupinacci, Pa.
224th AAA Group
Col. E. W. Thompson
226th AAA Group
Col. John D. Sides
227th AAA Group
Col. P. L. Wall
229th AAA Group
Col. Edw. Isaachsen, Illinois
251st AAA Group
Col. A. Long, Calif.
302nd AAA Group
Col. John M. Welch, Ohio
313th AAA Group
Col. A. F. Hoehle, Pa.
374th AAA Group
Col. T. F. Mullaney, Jr., Illinois
515th AAA Group
Col. F. G. Rowell, N. Mex.

Battalions

3rd AAA AW Bn (SP)
Lt. Col. C. W. Stewart
4th AAA AW Bn (M)
Lt. Col. R. J. Connelly
9th AAA Gun Bn
Lt. Col. H. O. Johnson
15th AAA AW Bn (SP)
Lt. Col. S. F. Hudgins
21st AAA AW Bn (SP)
Maj. Chas. E. Henry
22nd AAA AW Bn
Lt. Col. R. J. Jones
A Btry, 25th AAA AW Bn
Capt. L. M. Peterson
35th AAA Gun Bn.
Lt. Col. J. E. Burrows
39th AAA AW Bn (M)
Lt. Col. N. W. Baltzer
41st AAA Gun Bn
Lt. Col. W. A. Keyson
46th AAA AW Bn (SP)
Lt. Col. Wm. M. Vann
50th AAA AW Bn (SP)
Lt. Col. L. J. Lesperance
59th AAA AW Bn (SP)
Maj. K. E. Pell
60th AAA AW Bn
Lt. Col. R. T. Cassidy

62nd AAA AW Bn (SP)
Lt. Col. R. G. Finkenaur
63rd AAA Gun Bn
Lt. Col. B. I. Greenberg
65th AAA Gun Bn
Lt. Col. R. F. Moore
68th AAA Gun Bn
Lt. Col. R. C. Cheal
69th AAA Gun Bn (M)
Maj. D. C. Sherrets
70th AAA Gun Bn
Lt. Col. K. R. Philbrick
71st AAA Gun Bn
Lt. Col. A. J. Montrone
75th AAA Gun Bn
Lt. Col. A. A. Koscielniak
78th AAA Gun Bn
Lt. Col. T. W. Ackert
79th AAA Gun Bn
Maj. R. M. Booz
80th AAA Airborne Bn
Lt. Col. L. W. Linderer
82nd AAA AW Bn (SP)
Maj. F. A. Werner
95th AAA Gun Bn
Lt. Col. L. S. Dougherty
101st AAA Gun Bn (M)
Maj. L. D. Collins
102nd AAA Gun Bn
Lt. Col. M. H. Roesser
107th AAA AW Bn (M)
Lt. Col. T. H. Pope, Jr., S. C.
115th AAA Gun Bn.
Lt. Col. W. D. McCain
120th AAA Gun Bn
Lt. Col. H. C. Gray
126th AAA AW Bn (SP)
Lt. Col. R. C. Carrera, Mont.
127th AAA AW Bn (SP)
Lt. Col. H. G. White, N. Y.
142nd AAA AW Bn
Lt. Col. C. Beckman, N. Y.
150th AAA Gun Bn
Lt. Col. L. O. Ellis, Jr.
245th AAA Gun Bn
Maj. S. C. Davidson
250th AAA Gun Bn
Lt. Col. A. J. Twiggs
260th AAA Gun Bn
Lt. Col. R. H. Stephens, D. C.
265th AAA Gun Bn
Maj. H. Botts, Fla.
340th AAA Gun Bn
Lt. Col. G. V. Selwyn, D. C.
398th AAA AW Bn (SP)
Lt. Col. L. B. Dean

443rd AAA AW Bn (SP)
Lt. Col. J. F. Reagan
507th AAA AW Bn
Maj. S. J. Paciorek
518th AAA Gun Bn
Lt. Col. O. L. Greening
697th AAA Gun Bn
Lt. Col. James McMinn
698th AAA Gun Bn
Lt. Col. F. Monico, Illinois
705th AAA Gun Bn
Lt. Col. M. P. DiFusco, R. I.
707th AAA Gun Bn.
Lt. Col. F. Fulton, Jr.
708th AAA Gun Bn
Lt. Col. P. I. Getzinger
709th AAA Gun Bn
Lt. Col. L. A. Long
712th AAA Gun Bn
Lt. Col. H. H. Taylor, Jr., Fla.
713th AAA Gun Bn
Lt. Col. B. N. Singleton
715th AAA Gun Bn
Lt. Col. W. H. Uter, N. Y.
716th AAA Gun Bn
Lt. Col. Joe R. Stewart
717th AAA Gun Bn
Lt. Col. E. D. Pelzer
726th AAA Gun Bn
Lt. Col. John T. Watson
753rd AAA Gun Bn
Lt. Col. W. A. Smith
768th AAA Gun Bn
Lt. Col. T. H. Kuyper, Illinois
773rd AAA Gun Bn
Lt. Col. G. F. Slavin
804th AAA AW Bn (M)
Lt. Col. Wm. C. Wells
867th AAA AW Bn
Maj. S. M. Arnold

Operations Detachments

105th AAA Opns. Det.
1st Lt. E. A. Sisson
177th AAA Opns. Det.
Maj. W. F. Hale, Va.
179th AAA Opns. Det.
Maj. J. L. Butler
181st AAA Opns. Det.
Maj. R. H. Moser
501st AAA Opns. Det.
Maj. E. F. DeLeon
503rd AAA Opns. Det.
Capt. R. R. Berger
507th AAA Opns. Det.
Capt. E. F. Bookter

JOURNAL HONOR ROLL CRITERIA

1. To qualify or to requalify for a listing on the Journal Honor Roll, units must submit the names of subscribers and a roster of officers assigned to the unit on date of application.
2. Battalions with 80% or more subscribers among the officers assigned to the unit are eligible for listing, provided that the unit consists of not less than twenty officers.
3. Brigades and groups with 90% or more subscribers among the officers assigned to the unit are eligible for listing, provided that the unit consists of not less than seven officers.
4. Units will remain on the Honor Roll for one year after qualification or requalification.

Editor's Visit To The AAA & GM Center

YOUR editor had the good fortune to attend the Senior Officer Guided Missile Indoctrination Course at the Anti-aircraft and Guided Missiles School 6-8 June. It was truly a superb course.

With the idea of getting a rather complete indoctrination and also of spreading some, too, as to the purpose and merit of your *ANTI-AIRCRAFT JOURNAL*, I arrived on Sunday well before the course started. Bear with me for a rambling report.

Colonel Robert H. Krueger, Coordinator of Instruction in the School, met me and escorted me to the comfortable guest quarters on Fifth Avenue. Soon we moved on to the Kruegers' attractive quarters on Sheridan Road where Jean led us promptly out on the lawn to enjoy the twilight desert breeze. There we were joined by Brigadier General and Mrs. Jesse D. Balmer, Colonel and Mrs. George Van Studdiford, Colonel and Mrs. Wm. A. Weddell, and a few more before we moved on to the buffet supper and dance at the Fort Bliss Officers' Club. There it was like old home week. Suffice it to say that the Club is just as attractive as reported. Some may be interested to hear that the dance floor has been enlarged to accommodate the popular attendance at the Saturday and Sunday evening dances.

On Monday morning I learned early that Fort Bliss is a busy place. Before seven o'clock my sound sleep was interrupted by the activity in the radar, vehicle and gun parks nearby.

Major General John T. Lewis received me early and took time to orient me on the main features of the AAA and GM Center. As you know, General Lewis is also Commandant of the School and President of AFF Board No. 4. I was interested to note, in view of his broad experience in Army school work, that he had simply turned over the active direction of the School to General Balmer, the Assistant Commandant. More of that later. Likewise Colonel Charles E. Shepherd handles the Board activities.

The AAA and GM Center is now a big league affair. They have long boasted of the huge reservation; whether you call it 5,000 square miles, or three million acres, it is still twice the size of the state of Delaware, and as actually shaped it makes a splendid proving ground and firing center. They now speak also of their dozens of battalions, their thousands of students and trainees. Expansion is no longer an experiment at Fort Bliss. They have a system.

With all that, they take their greatest pride in the battle accomplishments of those AAA battalions in Korea that were originally trained at Fort Bliss.

Back to the system and the machine in the AAA and GM Center. Colonel Cyrus Q. Shelton, the Chief of Staff, and his staff keep it oiled for coordination. Among the new members since our last report, Colonel Robert A. Turner has joined as G3. Of particular interest to us, Major L. B. Wantuck is the aggressive PIO who provides us with news items and photographs of Fort Bliss activities.

Brig. General Frederick L. Hayden was activating the 38th AAA Brigade to take over command of the AAA combat units. Col. W. Bruce Logan commands the 11th AAA Group; Col. Fred J. Woods, the 16th; and Col. John A. Sides, the 226th. All of these groups have been through the mill in activating and training battalions and operations detachments.

The extent of activity in the AAA RTC led us to ask for the article which appears elsewhere in this issue.

Another activity of interest is that of the 1st Guided Missile Group under Colonel Thomas C. Foreman. The Group has now advanced to practical and impressive training operations. We are promised an article on its activity next issue.

The activities at Fort Bliss attract the attention of many distinguished military visitors from our own Armed Forces and abroad. During my visit Major General E. C. V. Moller, Chief of Staff, Danish

Army, accompanied by three other Danish officers and the Danish Military attaché in Washington, paid a visit to study the operations at the Center. On Monday evening General and Mrs. Lewis gave a delightful dinner party at the Club in honor of General Moller and his party.

On Wednesday morning at 0725 the class assembled for business. It included Maj. Generals David L. Ruffner and Bruce C. Clark, armored division commanders; Brig. Generals John A. Dabney, Camp Gordon commander; F. L. Hayden, 38th AAA Brigade; Guy O. Kurtz, 28th Divarty; Thomas E. Lewis, VI Corps Arty; and Harry P. Newton, Retired.

The total class of sixty included a number of senior General Staff officers from Washington and representatives from the Engineer, Ordnance, Signal and Chemical Corps, and the Air Force. Among the AAA stalwarts there were Colonels A. T. Bowers, Wm. A. Cauthen, Lee J. Davis, Vernum C. Stevens, and Wm. A. Weddell.

Brig. General Jesse D. Balmer, Assistant Commandant, and Lt. Col. F. M. McGoldrick, Director of the Guided Missiles Department, oriented us briefly and turned us over to the instructors. Soon we were in the Power Plant Lab where Lt. Col. M. B. Dodson broke the news to us about propulsion systems, subsonic and supersonic speeds, and gave us some instructive demonstrations.

After a break Majors J. H. Crowe and L. L. Stahl conducted another interesting period in guidance systems. Beginning easily with attitude and path control, they moved rapidly to mechanics and electronics—to yaw, pitch, and roll. Fortunately, they did not take us far out into space where fins and rudders count for naught.

Continuing in the afternoon Lt. Col. J. G. Sweek of the AFF Board No. 4 presented the status of development of AAA. Capt. F. C. Kajencki did the same for surface-to-air missiles (SAM). Then Lt. Comdr. Brooks covered the tactical

employment of the SAM.

General Lewis and the faculty held a reception for the class at the Officers' Club, six to seven P.M. After dinner arrangements were provided for those who desired to visit Juarez.

Thursday morning Lt. Cols. A. F. Rollins and M. W. Wood covered the subject of the surface-to-surface missiles (SSM). Capt. J. P. Tyler covered foreign developments.

We later left for White Sands Proving Ground where we lunched with the commander, Col. G. G. Eddy. He later outlined his operations, took us for a tour, and gave us a show in rocket firing which we shan't soon forget.

Friday morning we observed three effective demonstrations. Colonel Forman with officer and enlisted assistants demonstrated the training operations of the 1st G. M. Group.

On Hueco Range No. 4, under the

direction of Colonel Paul B. Nelson, Gunnery Department, the 716th AAA Gun Battalion (90mm) (Lt. Col. Joe R. Stewart) and the 28th AAA Gun Battalion (120mm) (Lt. Col. A. A. Adams) put on a separate and joint firing demonstration against towed targets.

On Hueco Range No. 2, the 59th AAA AW Bn (SP) demonstrated the M19 twin forties in ground firing and aerial firing against RCAT's by the M19's, the towed 40mm guns, and the M16 quad fifties. In both the heavy and light AAA demonstrations fire power and accuracy were evident.

In the afternoon Lt. Col. Rollins gave us a study on strategic operations and Lt. Col. McGoldrick outlined the training problems involved in expansion.

To close the course General Balmer conducted a discussion period in which the students were allowed to spring the questions.

The highlights were 1) the course was well organized and put over by top-flight instructors, 2) the schedule clicked, and 3) the staff and faculty of the Anti-aircraft and Guided Missiles School are integrated.

Specific action has been renewed lately at higher levels toward the integration of the Artillery officers' education. In this School considerable progress has been made already. General Balmer, an erstwhile field artillery veteran, directs the School activity as a guided missile enthusiast. Likewise, Colonel William Taylor, Jr., directs the Tactics Department. Colonel Harold T. Bratherton is the coordinator of administration; Lt. Col. Kenneth A. Eddy is the Secretary; there are also a large number of other field artillerymen and representatives of other branches throughout the staff and faculty.—C. S. H.

Notify the Journal of Your Address Change



Courses At The AAA & GM School Fort Bliss, Texas

Schedule of Classes

The Artillery Officer Advanced Course (47 weeks) will be integrated for AAA and FA. The entire class of about 340 will report at Fort Sill, Okla., by 25 July, where the course will include all pertinent subjects, except AAA material and gunnery and guided missiles. The entire class will go to Fort Bliss from 24 October to 22 December for the subjects mentioned above and then return to Fort Sill to complete the course 25 June, 1952.

CLASS No.	REPORTING DATE
6	25 July 51

Associate AAA Officer Advanced (15 weeks)

7	6 Aug 51
8	7 Jan 52

Associate AAA Battery Officer (15 weeks) will be very active. It will be attended by the USMA graduates assigned to AAA as well as the distinguished ROTC graduates. Some will go

directly to the school 16 July; others in October from their units. Likewise the course will be attended by some 600 ROTC graduates, OCS graduates, a large number of other officers ordered to active duty; and many more to be ordered by the army commanders and the Army AA Command, from active AAA units.

33	16 July 51
34	6 Aug 51
35	27 Aug 51
36 to 42	begin one each month October to June.

Guided Missile (32 weeks) is conducted for Army, Navy, Air Force and Marine Corps officers. The students are trained in and observe firings of the latest missiles. GM courses for enlisted men will be announced soon.

10	20 Aug 51
11	12 Nov 51

Artillery Fire Control Systems Officer

(31 weeks) has replaced the Electronics Radar Course.

1	13 Aug 51
2 to 6	with starting dates from October to June.

AAA Battery Officer Refresher (4 wks)

6	9 July 51
7 to 10	with starting dates from September to June.

AAA Field Officer Refresher (4 wks)

6	9 July 51
7	4 Feb 52
8	7 Apr 52

Radar Officer Refresher (4 wks)

3	4 Feb 52
4	7 Apr 52

Officer and Enlisted Courses

Fire Control System AA T-33 Familiarization (20 wks)

3	11 June 51
4	24 Sept 51
5 to 12	begin one each month from October to June.

Fire Control System AA T-33 Range Officer or Operator (4 wks)

4	16 July 51
5	27 Aug 51
6 to 12 with starting dates from October to June.	

Enlisted Courses

The AAA Gunnery Control and Operations Chief courses are identical. They have replaced the Master Gunner courses of last year. Likewise both the Fire Control Electrician (Gun) and the Radar Repair and Maintenance courses have been replaced by the Artillery Fire Control System Specialist courses "A," "B," "C," and "D." The AAA Weapons Maintenance courses have been transferred from Fort Sill.

AAA Gunnery Control (18 wks)

27	6 Aug 51
28	17 Sept 51
29 to 34 with starting dates from October to June.	

AAA Operations Chief (1724) (18 wks)

Same as AAA Gunnery Control.

Artillery Fire Control System Specialist (Scope "A" SCR 584 w/Director M-9, M-10) (35 wks)

1	9 July 51
2	13 Aug 51
3	10 Sept 51
4 to 11 begin one each month from October to June.	

Artillery Fire Control System Specialist (Scope "B," FCS T-33) (38 wks)

2 to 12 with starting dates identical with courses for Scope "A" above.

Artillery Fire Control System Specialist (Scope "C," FCS T-38) (35 wks)

1 to 11 with starting dates identical with courses for Scope "A" above.

Artillery Fire Control System Specialist (Scope "D," Counter-Mortar Radar) (28 wks)

2	8 Oct 51
3	10 Mar 52

AAA Weapons Maintenance (4833) (7 wks)

9	6 Aug 51
11	10 Sept 51
13	15 Oct 51

15	19 Nov 51
17	7 Jan 52
19	11 Feb 52
21	17 Mar 52
23	21 Apr 52
25	26 May 52

AAA Weapons Maintenance (4834) (7 wks)

10 to 26 (even numbered) with starting dates identical with odd numbered classes, Weapons Maintenance, above.

Fire Control Electrician (AW) (0633) (17 wks)

59	9 July 51
60	10 Sept 51
61	19 Nov 51
62	7 Jan 52
63	10 Mar 52
64	12 May 52

Courses at the Artillery School Fort Sill, Okla.

Officer Course

Artillery Officer Communications (0200) (12 wks)

7	27 June 51
8	15 Aug 51
9 to 14 with starting dates from October to June.	

Artillery Officer Communications Refresher (0200) (2 wks)

1	1 Aug 51
2	26 Sept 51
3	7 Nov 51
4	16 Jan 52

Enlisted Courses

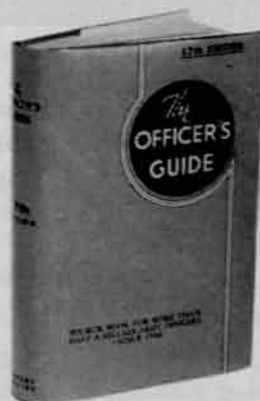
Artillery Enlisted Communications (1542) (12 wks)

13	18 July 51
14	8 Aug 51
15	22 Aug 51
16 to 33 beginning one or more each month from September to June.	

Artillery Radio Maintenance (3174) (12 wks)

11	25 July 51
12	22 Aug 51
13 to 20 with starting dates from September to June.	

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Artillery Ballistic Meteorology, (1784, *1784 w/Maintenance) (1784-25) (11 wks); (*1784-10) (21 wks)

9 3 July 51

Artillery Ballistic Meteorology (4784) (11 wks)

1 26 Sept 51
2 9 Jan 52

Weather Equipment Maintenance (1784) (12 wks)

1 3 Oct 15
2 to 9 with starting dates from
October to June.

Artillery Track Vehicle Maintenance (3660) (8 wks)

4 1 Aug 51
5 15 Aug 51
6 29 Aug 51
7 to 26 beginning each two
weeks from September to
June.

*Artillery Vehicle Maintenance Super-
vision* (8 wks)

4 3 July 51
5 1 Aug 51
6 29 Aug 51
7 to 17 with starting dates from
October to May.

The Artillery School Schedule shown includes only an extract of the courses of interest to the AAA that are conducted at Fort Sill, Oklahoma.

Quotas

The Army Field Forces spokesman emphasized that AAA battalion and higher commanders can initiate requests for quotas through channels to OCAFF whenever pertinent. Last year, through misunderstanding, the AAA failed to utilize fully the quotas available for them at Fort Sill.

Quotas for courses of more than 21 weeks are filled from the pipe line with permanent change of station. Shorter courses may be taken on a DS status, for which quotas are allotted to Army commanders and to the Army AA Command. Individual officers and enlisted men, returning from overseas in the pipe line, may initiate application for assignment to school courses. For further information write to the School Commandant.

Comment on War Crimes Trials

The report on the Wake Island Conference, made public in connection with the Senate investigation into the relief of General of the Army Douglas MacArthur, brings up one important subject which undoubtedly will be given more serious consideration. At that conference, when it was thought that the war in Korea would soon be over, consideration was being given to the courses of action to be followed. Mr. W. Averell Harriman asked General MacArthur:

"What about war criminals?"

General MacArthur replied:

"Don't touch the war criminals. It doesn't work. The Nuremberg trials and Tokyo trials were no deterrent. In my own right I can handle those who have committed atrocities and, if we catch them, I intend to try them immediately by military commission."

Here is a view on the controversial war trials which has not been hitherto expressed by such an outstanding authority as General MacArthur. It must be remembered that after fighting the Japanese from Australia to Tokyo, it was he, as Supreme Allied Commander, who had jurisdiction over the war trials. He saw many military and civilian leaders of his erstwhile enemies condemned to death or to long prison terms. He had virtually unparalleled opportunity to observe the effect on the people. His judgment now is that the trials didn't work—that they were no deterrent. He feels that field courts and provost courts can handle actual atrocities. Perhaps a restudy of the effects of these trials would lead to a better method of handling the problem should it arise in the future.—*Army-Navy-Air Force Journal*.

Silver Star

PRIVATE FIRST CLASS CHARLES K. HORST, JR., a member of Battery A, 50th AAA AW Bn. (SP), is cited for heroism in action against an armed enemy in Korea. On 11 December 1950, Private Horst was manning a machine-gun position in a defensive perimeter near Chinhung-ni when the enemy, trying to infiltrate, opened fire with automatic weapons. With complete disregard for his safety, exposing himself to the heavy automatic weapons fire, he located the enemy positions. Then, despite repeated warnings to take cover, he remained in his exposed position delivering such a heavy volume of machine-gun fire that the enemy was forced to withdraw. His heroic actions in preventing an infiltration of the perimeter reflect great credit on himself and the military service. x x x West Virginia.

The AAA RTC, Fort Bliss, Texas

COMBAT soldiers who have been trained in the Army's only Antiaircraft Artillery Replacement Training Center, at Fort Bliss, Texas, are now serving in the Far East and in Europe.

Since its establishment on August 10, 1950, the AAA RTC has trained more than 13,000 soldiers. Approximately half as many more are currently in or about to begin their cycles of instruction.

The AAA RTC is commanded by Colonel Earl W. Heathcote. Major General John T. Lewis, commanding the AA and GM Center, also takes an active interest and hand in all of its operations.

The primary mission of the AAA RTC is to receive, train and ship as automatic weapons crewmen or heavy antiaircraft artillery cannoneers pipeline personnel who previously have received their basic training in one of the several training divisions within the continental United States. The trainees get eight weeks training in the AAA RTC after they have completed six weeks in the basic training division. A secondary mission is to train as basic soldiers for post units all untrained personnel received from reception centers. These trainees also get an eight weeks training course adapted to the specific needs.

As currently organized, the AAA RTC includes one group of six battalions of four batteries each. Frequently general reserve AAA units or provisional battalions are also attached to provide facility for temporary expansion of the RTC.

Recently Colonel Heathcote has expanded the activity to meet a specific need. The recently federalized National Guard battalions arrive at far below T/O & E strength and lacking some key personnel. They require assistance; so the AAA RTC conducts the initial training of the filler personnel for these battalions. Concurrently, the 11th and the 226th AAA GROUPS, general reserve units, carry on specialists' schools for National Guard cadre and specialists. Upon completion of five weeks training within the Replacement Training Center the fillers and trained cadremen will join the National Guard battalions which will immediately start unit training.

The unit, rather than the committee or faculty type, method of instruction is

pursued within the AAA RTC. It places responsibility for the superior training of an individual upon the unit commander in order to develop a well-rounded cadremen rather than a specialist. The need for such a balanced procedure was demonstrated when directives were received to ship direct to Korea, qualified officer and enlisted cadres for battlefield replacement of combat soldiers selected for return under the Army rotation program.

An integral part of the AAA RTC is a leader's course which implements the objective stated in ATP 22-1 "to select potential leaders early in their military careers, and to develop their capacity for leadership by example, by instruction, and by guidance in the actual performance of duties which involve the leading of troops."

The Department of the Army establishes for each continental army quotas for the leader's course. The course has graduated 387 potential leaders. A recent directive to double its capacity will enable it to produce more individuals capable of becoming noncommissioned officers. Through the generosity of the Citizens Committee for the Army, Navy, and Air Force, Inc., of New York City, outstanding graduates have been presented the American Spirit Honor Medal and Certificate, at appropriate ceremonies such as reviews.

Specifically the American Spirit Honor Medal and Certificate is awarded for the display of outstanding qualities of leadership, best expressing the American spirit of honor, initiative, loyalty and high example to comrades in arms. The following trainees have received the medal this year:

Frederick A. Waterous, St. Paul, Minn.

James B. Blunk, Santa Monica, Calif.

George P. Hambleton, Richmond, Va.

Clayton W. Wood, Phoenix, Ariz.

Granville Tate, Nevada, Miss.

Ira L. Gross, Los Angeles, Calif.

Leadership potentials are developed throughout the basic and branch material programs of the RTC. The student leader is given actual practice in command and in leading in all instruction

and training—in artillery firing, in infantry combat, in athletics, and elsewhere.

Realistic field training and vigorous physical conditioning are emphasized to develop soldiers ready for combat. The trainees spend many days in the field in bivouac, field problems, and in counter-ing guerrilla type action. Surprise aggressor actions are introduced to help teach security. The trainees also get sound conditioning in foot marches under packs. Colonel Heathcote tolerates no vehicle-bound personnel.

Confidence gained during the basic training infiltration course is increased as the men negotiate rocky, desert-like combat courses. A combat village in the Franklin Mountains on the outskirts of El Paso provides realistic training in village combat.

Antiaircraft artillery trainees receive training with their weapons. Firing is conducted against both ground and aerial targets; the latter including both airplane-towed and radio-controlled airplane targets.

The RTC maintains an active athletic program. Pvt. Samuel Kelly, Btry A 3rd Battalion won the Fourth Army middle-weight championship at Fort Sill in December.

The RTC won the post basketball championship in February and still has two softball teams in the post league: Btry C, 4th Bn. and Btry A, 6th Bn.

Captain John C. Briggs, the I & E Officer, supervises a very effective program in that field, with the emphasis on the battery programs and on the night classes at Texas Western College.

Training battalion commanders are:

Major David Cooper, 1st Bn.

Col. Geoffrey W. Sargent, 2nd Bn.

Major Elwood G. Schwartz, 3rd Bn.

Lt. Col. John Martinelli, 4th Bn.

Major John E. Hendry, Jr., 5th Bn.

Major F. R. Whitehead, Sr., 6th Bn.

AAA RTC staff officers include:

Major James D. Benner, Executive

Lt. Col. Richard A. Shagrin, S4

Major Martin O. Hemingway, S3

Capt. F. B. Matthews, Personnel

Capt. Dudley S. Shine, III, S2

Capt. Robert A. Leitzell, Adjutant

A Substitute For Trial Fire

By Major M. R. McCarthy

THE value of complete and accurate preparation for fire for heavy antiaircraft artillery is well recognized. All steps in preparation for fire—emplacement, leveling, orienting, synchronizing, computation and application of ballistic corrections, calibration fire, and trial fire—are important, and all must be completed within very close limits of accuracy if fire for effect against an aerial target is to be successful.

With accurate work on all the previous steps in preparation for fire, those corrections determined by trial fire are usually small; however, I believe all will agree that corrections at present determined by trial fire are quite essential to make the antiaircraft artillery fire effective.

Suppose that you were suddenly told that in the future trial fire would not be conducted. We must accept the fact that for sound reasons restrictions will be placed upon the use of trial fire.

First, it may be tactically unsound to disclose AAA positions by firing trial fire. Second, the danger to friendly installations is indeed a problem. In my experience during World War II, it was necessary to secure clearance through group headquarters in order to fire trial fire, and this clearance was given once each twenty-four hours. When antiaircraft artillery is employed in the defense of our cities, in a heavily populated area such as Philadelphia, is it reasonable to expect that trial fire will be permitted? I think not! The problems of falling shell fragments and civilian morale are diametrically opposed. Trial fire would probably be prohibited. It appears to be

pertinent then to re-examine the problem of trial fire.

ANALYSIS OF PREPARATION FOR FIRE

UNDER any condition, certain steps in preparation for fire can still be accomplished accurately and successfully. Emplacement, levelling, orienting, and synchronizing can be performed without interference in the position area. Calibration fire can be performed in some suitable location in a training or staging area.

Now let us diverge briefly to consider a few basic concepts.

1. *Ballistics* is defined as the science which deals with the motion of projectiles through air.
2. The science of ballistics includes:
 - a. *Internal ballistics*, which deals with the motion of the projectile while it is still in the bore of the gun, and with the conditions existing inside the gun.
 - b. *External ballistics*, which deals with the motion of the projectile as it travels from the muzzle of the gun to the target.
3. *Gunnery* is the art of applying the science of ballistics.

Therefore, in our gunnery we must know and correct for any variations from standard conditions that affect either the internal or external ballistics of a given projectile.

Knowledge of variations from standard conditions that affect external ballistics comes from the meteorological message. With improved meteorological equipment and adequate and proper training of operating personnel, an accurate and valid meteorological message should be available. Proper application of corrections based upon the meteorological message, that is, ballistic corrections, should minimize factors in exter-

nal ballistics that would adversely affect antiaircraft artillery fire.

Now what of trial fire? In the past we have taught that the purpose of trial fire was to eliminate "unknown errors" from gunnery. Fundamentally, the trial fire corrections have eliminated errors resulting from variations from standard of certain conditions affecting internal ballistics. These errors have been referred to as "unknown errors," I believe, because we have had no means available for measuring all of these variations. Any real consideration of internal ballistics has been regarded as beyond the scope of an antiaircraft artillery officer. In spite of this fact, let's consider internal ballistics for a moment. Internal ballistics is dependent upon such factors as:

length of bore,
size and shape of propellant grains,
rate of burning of propellant grains,
weight of propellant charge,
weight of projectile,
propellant temperature,
chamber capacity.

The length of the bore is kept constant in the manufacture of the weapon.

The size and shape of propellant grains, their rate of burning, and the weight of the propelling charge are kept constant within very close tolerances in manufacture and assembly of the round of ammunition. Variations in performance between lot numbers of propellant have caused some gunnery headaches in the past. However, data on the expected performance for each lot number can be determined and made available to the firing batteries in terms of muzzle velocity.

The weight of the projectile is kept within known tolerance limits in manufacture. Corrections for variations from standard are based on tabular data from the firing tables. Due to the design of our director, the corrections are applied as an effect on muzzle velocity.

Major M. R. McCarthy served during the war as an instructor in the AAA School and as a battery commander in combat. Since the war he has attended the British School of Antiaircraft Artillery, and is now a student in the AA and GM Branch, The Artillery School.

The propellant temperature is measured by use of a special powder temperature thermometer at each battery position. Corrections for variations are computed and applied to the present director as an effect on muzzle velocity.

Of all of the principal factors affecting the internal ballistics of a projectile, only the chamber capacity is unknown, or is not measured. Assuming uniform projectile loading, which we should achieve consistently by use of an automatic rammer, the chief cause of variation in chamber capacity is due to wear and erosion; and wear and erosion of a gun bore are inherent in any type of artillery fire. The effect of an increase in chamber capacity, that is, wear of the chamber and bore, is to decrease muzzle velocity.

Since information concerning expected muzzle velocity is so vital to successful gunnery, let's see how this information is obtained now. It could be obtained from a field chronograph. However, in nine years of service in antiaircraft artillery, I have never encountered the special teams to perform this operation; so the value of this method in a practical sense must be questioned. Also, since wear is constantly changing the chamber capacity, the problem of chronographing is a recurring one. Another method of determining battery developed muzzle velocity is by analysis of fire. Application of this technique is far from universal, however.

Unfortunately, muzzle velocity data is all too often determined by a process known as the "educated guess" method. The difference between this guessed muzzle velocity value and the true battery developed muzzle velocity was one of the greatest of the unknown errors eliminated by trial fire corrections. If trial fire is prohibited, then we need another sound method of determining the muzzle velocity.

A SOLUTION

I HAVE attempted to develop the idea that, in reality, trial fire corrections are not to eliminate "unknown errors," but are corrections which, in the main, eliminate the effects of variations from standard of conditions affecting the internal ballistics of a projectile. I have also attempted to show that of these conditions which might affect the internal ballistics of a projectile, all are kept standard, or variations from standard are known or can be measured, with the single exception of that of variation in chamber capacity due to wear and erosion. It follows then that trial fire may be substituted for where necessary by the following general procedure:

1. Perform all steps of preparation for fire with the greatest accuracy in order to eliminate personnel errors.
2. Make available to each battery a simple "pull-over" type bore gauge to measure the chamber and bore diameters.
3. Use tables prepared by the Ordnance Department to relate a given chamber measurement to an expected muzzle velocity. If data for these tables is not already available, it could easily be obtained from experimental firing.
4. From the muzzle velocity values then available for each gun, select an average muzzle velocity value to be applied to the director. It is apparent that the problem of selecting the average muzzle velocity would be greatly simplified by arranging to have guns of approximately equal wear in the same battery, and by keeping wear approximately equal within the battery by ensuring that the number of rounds fired from each gun remains roughly the same.

5. Correct the average muzzle velocity value for variations from standard in propellant temperature and projectile weight.

SYSTEM AS USED BY ROYAL ARTILLERY

THE gunnery system outlined above has been in use with the British Antiaircraft Artillery for several years. Corrections for external ballistics are applied directly to the predictor as in our Service. The muzzle velocity setting is dependent upon the wear of the tube and the propellant temperature, both of which are measured. Variations in weight of projectile are ignored. The wear of the tube is measured by a pull-over gauge issued to each AAA troop. The bore measurement is converted to a muzzle velocity value through reference to a table in the firing table. If the muzzle velocities of all four guns do not cover more than a 25 ft/sec band, the mean muzzle velocity is taken as the battery developed muzzle velocity. If a gun exceeds this 25 ft/sec limit on muzzle velocity difference, it is regarded as an "odd" gun; its muzzle velocity value is not used in determining a predictor setting; compensation for this greater variation is made by special corrections in elevation and fuze at the gun in a manner comparable to our calibration corrections. Once determined, the mean muzzle velocity is corrected for propellant temperature, and is then applied to the predictor.

CONCLUSION

Trial fire should be used whenever possible.

Since trial fire will frequently be impracticable in war, the gauge method of determining battery developed muzzle velocity should be incorporated into US antiaircraft artillery teaching as an alternate means to trial fire in the preparation for fire.



FORT BANKS REACTIVATED BY ARMY

Immediate reactivation of Fort Banks at Winthrop, Massachusetts, was announced by the Department of the Army.

Fort Banks, which will be used by antiaircraft artillery units, was declared excess to Army needs on January 31, 1950.

Leveling 90mm and 120mm Guns

By Captain Peter P. Genero, Arty.

IT has been found that the on-carriage level vials on about half of the 90mm and 120mm guns are more than .5 mil out of true zero. An instruction team from the AA school in early 1945, distrusted on-carriage level vials to such extent, that they smashed the level vials on the 90mm M1A1 guns in my battery. They taught that only by using the gunners quadrant, could the guns consistently be leveled accurately. This method appears to have been forgotten.

When employing the gunners quadrant, the first step is to insure that the quadrant itself is accurate. This is done by the end to end test. A quadrant is set at zero and placed on the quadrant seats of the gun. The gun is then elevated by using the elevation handwheel until the bubble is centered. Without changing the azimuth or elevation of the gun, the quadrant is lifted, rotated 180 degrees and again placed on the quadrant seats. If the bubble remains centered, then the quadrant is true. If the bubble is displaced, the quadrant is off and must be adjusted. This adjustment may easily be accomplished within the battery. Measure the displacement by using the vernier adjustment on the quadrant. Next take up one half of the displacement by elevating the gun with the elevation handwheel. Then loosen the set screws on top of the vernier adjustment knob of the quadrant and slide the vernier scale to compensate for the other half of the displacement. Tighten the set screws. Repeat the end to end test and the adjustments listed above until all errors are zeroed out of the quadrant. The accuracy of the quadrant cannot be taken for granted even on a day to day basis.

Traverse the gun until the tube is directly over one of the leveling jacks. Set the quadrant at zero and place it on the quadrant seats. Center the bubble by elevating the gun with the elevation

handwheel. Without changing the quadrant or the elevation of the gun, traverse the mount exactly 3200 mils. Then observe the bubble. If it remains centered the gun is level along that specific axis. Should the bubble be displaced, we then know the error must be in the gun, since we have already checked the quadrant. Measure the displacement with vernier adjustment knob. Take up one-half of the displacement by elevating the gun with the elevation handwheel. The remaining half of the displacement is taken up by working the leveling jack over which the tube was first placed. (On 90mm M2 and 120mm guns the leveling jacks are worked in pairs.) With the quadrant at zero and the bubble centered, the mount is then traversed 3200 mils to its original position. The bubble should remain centered. If it is displaced, again take up one-half of the displacement with the handwheel and the other half with the leveling jack or pair of jacks. Traverse the mount 3200 mils and repeat the process until the bubble remains centered at both points.

NEXT traverse the gun until the tube is directly over the remaining jack. (On the 90mm M2 and 120 mm guns align the tube over either of the remaining jacks.) Set the quadrant at zero and place it on the quadrant seats. Elevate the gun with the elevation handwheel until the bubble is centered. Then traverse the gun 3200 mils without changing the quadrant or the elevation. Observe the bubble. If it is centered the gun is leveled on this axis also. If the bubble is not centered, level the gun as outlined in the above paragraph using the second leveling jack or pair of jacks. After this has been accomplished, check the gun over the first jack or pair of jacks once more and repeat the entire procedure if necessary. The gun is now level over two axes, perpendicular to each other, and for all

practical purposes, level throughout 6400 mils of traverse.

However, nothing is taken for granted. The quadrant is left on the quadrant seats and the gun is slowly traversed 6400 mils. The bubble is observed continuously and .5 mil is the maximum allowable tolerance. If the displacement exceeds the tolerance, and the gun is level over both axes, then the gun is not properly settled. More settling rounds may be necessary or the gun position may have to be improved or even shifted slightly.

It may be noted that throughout this article, half of the displacement is always taken up by elevating the gun and never by depressing the gun. Should it be necessary to depress the gun, it is first depressed at least 10 mils below the desired elevation and then the gun is slowly elevated up to and not beyond the correct elevation. This insures that the gear train will always remain tight and that no error will creep into the leveling procedure through backlash.

Actually, any desired elevation may be used in leveling the guns. Zero mils elevation was used in the above example for convenience only.

The only advantage in utilizing the on-carriage level vials is speed and they should be used when speed is more important than accuracy. Their great disadvantage is that they are always subject to shock and often require adjustment, an ordnance job. Because of their location on the mount, it is difficult to place the eye perpendicular to the level vials for an accurate reading. Since the level vials are on the stationary portion of the mount, they do not always indicate improper settling of the gun.

On the other hand the gunners quadrant method is accurate and foolproof. It leaves nothing to chance. If the bubble on the quadrant remains centered throughout the 6400 mils of traverse, the gun must be level.

INDIRECT FIRE WITH THE M19

By Captain Kenneth W. Swayze, Arty.

THE use of the M19 for indirect fire is still a controversial subject. However, here in battle we have found that it actually works well even at extreme ranges. We have also arrived at one solution which can be applied in the field in a very simple manner.

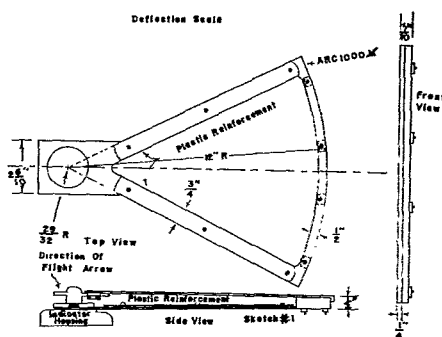
Following the invasion of Inchon in September, our Battery C, 50th AAA AW Battalion (SP), was attached to the First Battalion, 187th RCT (Airborne) at Madong-ni, approximately four miles south of the Han River. There we formed a task force with Company C of that battalion. The airborne infantrymen rode on our M19s and M16s to a point about ½ mile from the river. At this point the infantry dismounted to clear the high ground to the right of the road. We stood by ready to fire supporting cover for the infantry.

The vehicles were deployed and crews were standing by when we spotted North Koreans crossing the river in boats at a point (later determined to be 4,500 to 5,500 yards) to the left flank of our guns. We immediately opened fire on them. Although some of the enemy were killed and wounded, the firing was definitely not controlled as well as it might have been. There was far too great a lapse of time between contact and the time when accurate fire was brought on the enemy. Naturally the fire was quite erratic in dispersion, due to self-detonation at tracer burnout, and most rounds were air bursts over the water. However, we were firmly convinced as to the lethal effectiveness of the 40mm gun up to and including the airburst range. We also saw that we had to have a better sighting system for long-range firing.

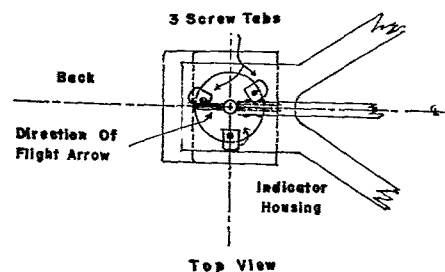
THE direction of flight arrow is designed to stay fixed in a preset direction during tracking. When you point the

weapon (both gun tubes and direction of flight arrow) at a definite object on the ground, you can traverse the tubes any angular amount in azimuth and the direction of flight arrow will remain fixed on the original point. This can readily be seen by boresighting on a point and scribing the position of the direction of flight arrow on the indicator assembly ring. (At this point check the direction of flight arrow to see if it is set solid. The pin holding the direction of flight arrow to the shaft is often loose, permitting a certain amount of error; can be corrected by center punching.) You can then traverse 6400 mils and when you again boresight you will find the direction of flight arrow and the scribe marks will match. With this in mind we devised a sight based on that principle.

We procured a sheet of stock aluminum 3/16" thick, cut out the sight in the form of a deflection fan, 12" long (see sketch), and drilled a hole in the rear to fit over the direction of flight ar-



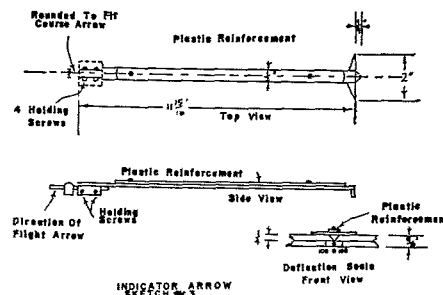
row indicator assemble. Using the center of the hole as a vertex, a mil deflection scale was marked for a thousand mil shift—zero to 500 mils right and zero to 500 mils left. The sight is held in place by three screw tabs (sketch 2) in the top of the indicator assemble box positioned where it can easily be read by the horizontal gun pointer. For an index an aluminum indicator (see sketch 3) fastened to the direction of flight arrow was used, strengthened with plexiglass to improve rigidity. The deflection scale was scribed by a local Korean scale maker. It



Screw Tab Arrangement Sketch No 2

was found best to scribe the lower half of the deflection scale so that the index could have a larger bearing surface on the fan. Total cost for the sight was five dollars in Won.

In test firing with the use of the sight



and an aiming circle we found that accurate shifts of fire up to 1,000 mils could be made.

One Weapon Control:

IF firing is to be conducted directly by the chief of section, the sight works perfectly with his field glasses. Since the M13 sighting system is a line of sight type, it is usually above target at ranges greater than 1,500 yards; the tubes must be depressed to facilitate resighting unless some makeshift method is used. This system permits the chief of section to measure mil deviation at a point away from the gun and thus prevent being blinded by dust, smoke, and vibration of the gun. This gives more accurate control and better firing results, and permits firing to maximum range without forward displacement. The use of the gunner's quadrant is a must as the track usually does not set on level terrain, and any

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deflection shift, when the mount is not level results in more inaccurate firing in range.

Platoon or Battery Control:

AT platoon level, with guns numbered right to left, have all guns elevate to 200 mils or an approximate elevation for an air burst in the existing terrain. Make certain that the speed setting is at zero on all guns. Have the No. 2 gun fire one round, and all guns traverse to, and center the burst in the M23 reflex sight, disregarding drift. This is accurate enough for area fire. However, if you wish, you can open the sheaf to make the trajectories parallel (assuming tracer burnout to occur at 4,500 yards with MK2 ammunition). After guns are set for direction, zero all sights by loosening screw tabs and moving deflection scale to indicator and tighten tabs. After that a common deflection can be used as all sights should read the same at all times. Remember that deflection must always be approached from the same direction. When the platoon leader announces shifts in common deflection and quadrant elevation he can have accurate fire if the data are set accurately and each deflection approached from the same direction. By following the approved FA principles of gunnery, accurate fire by the battery or platoon can now be brought on any given area within range.

If a distant landmark is visible to all

guns, that landmark can be used as the common reference point in lieu of the air burst described above. If the guns are spread widely the landmark should be at a great distance.

The methods described above can be used for night firing, too.

WHEN using this sight it is possible to shift more than 1,000 mils. If to the right, the target course handwheel is turned until the index reads 500 mils left. When the gun is traversed through 1,000 mils the index will read 500 mils right; then readjust the index to read 500 mils left by use of the target course handwheel, and continue traversing right until the index reads zero. This system is accurate for large shifts, but the index will not always position itself correctly due to gearing, so for the final phase, where pin-point accuracy is desired, the gunner must interpolate each deflection, being careful to approach from left to right in order to prevent the backlash of the target course flexible shaft from affecting the accuracy of fire. The gunner must be trained to automatically approach a target or deflection from the same direction, for the error resulting from this backlash could result in ineffective fire.

WHEN reporting to a new unit you are almost always asked, "can you fire

indirect fire?" If you can do so, you can execute many valuable missions when otherwise the crews would be idle. Sometimes it is much better to lay down effective fire at from two to four thousand yards than it is to let the enemy advance right on your gun tubes before you can open fire. Some believed that being self-propelled, if we were fired upon, we would just move to another position. That does not always work so well. If you are limited to direct fire, you can move only to one flank or the other. Alert enemy artillery can spot you in a hurry. Try it out and you'll find that defilade and indirect fire are quite agreeable to the gun crews.

In fact in this theater the longer range tracer, or better still a nonself-destroying type of H.E. ammunition would facilitate effective harassing fires by the 40mm guns at much longer ranges. If we could deliver such fire, certainly the infantry and the artillery are ready to use it. It would also give our gun crews much more satisfaction than just sitting and waiting.

Here in Korea we are convinced that the M19 twin 40mm gun has the effectiveness and versatility to stamp it as an outstanding front-line weapon.

(See "Indirect Fire with 40mm Weapons," by Major D. B. McFadden, Jr., in May-June issue for fire direction procedure, graphical firing tables and other matters.—Ed.)



Indirect Fire With The 40mm Gun

By 1st Lt. John H. Hoffman

OPPORTUNITIES to use the 40mm gun for indirect fire are the exception rather than the rule. However, occasions arise when the gun can be used in this role, in which case a means of laying the

gun in direction and elevation is needed. An expensive or elaborate sighting system is not necessary. The gun pointing method described herein has been tested and the effectiveness proven. The construction cost per gun would be approximately five dollars.

The azimuth scale is similar to the description in paragraph 238, b, (1), b, Field Manual 44-2. The elevation scale is similar to the description in paragraph 238 c of the same manual. The firing

procedure is believed to be an improvement of the system described in Field Manual 44-2 and in Change 2, Field Manual 44-60, added paragraphs 61.3 and 61.4.

The azimuth and elevation scales are mounted over the hand drive assembly housing on their particular side of the gun by removing the upper two retaining screws and replacing them with a three-inch screw and a two-inch spacer. Threaded holes in the head of each

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screw allow the scale to be attached using two small screws of approximately one-quarter-inch length. This permits an indicator on the base of the hand operating assembly sleeve to intersect the graduations on the scale and give deflection readings in mils. See Photos 1, 2, and 3 and Figure 2.

CONSTRUCTION

THE basis for the elevation scale is that one turn of the elevation crank moves the tube four degree or 71.2 mils. Therefore, a complete circular scale divided into 71.2 graduations would give accurate mil elevation readings from a zero point in direct relation to the distance the crank was turned. A half turn of the crank would move the tube 35.6 mils.

Since the elevation tracker could not see all of the readings on a complete circular scale, only enough of the scale is used to obtain readings of 20 mils in both directions from a zero point. The zero point is placed at the top of the scale and the graduations are marked in one-half mil increments in each direction down to twenty mils. Plus and minus signs indicate the direction the crank must be turned to elevate or depress the tube. An indicator is built into the base of the hand operating assembly sleeve to intersect the graduations on the scale. The elevation tracker is able to disengage the hand operating assembly, reengage with the indicator at zero, and make elevation settings or corrections by turning the handle the proper number of mils on the scale.

To elevate thirty mils, since the scale only goes to twenty, he would merely turn off plus twenty mils, disengage the handle, reengage at zero and turn off an additional plus ten mils. The error caused by meshing the gears at zero is about one mil or a ground impact error at five thousand yards of approximately twenty-five yards. This error is all absorbed in the first burst as will be shown later in Procedure.

The azimuth scale is constructed in the same manner as the elevation scale with the following exceptions:

A complete turn of the azimuth crank moves the tube on the M2A1 carriage seventeen and one-seventh degrees or 304 mils. The scale is constructed with graduations in one mil increments from a zero point at the top down to 100 mils

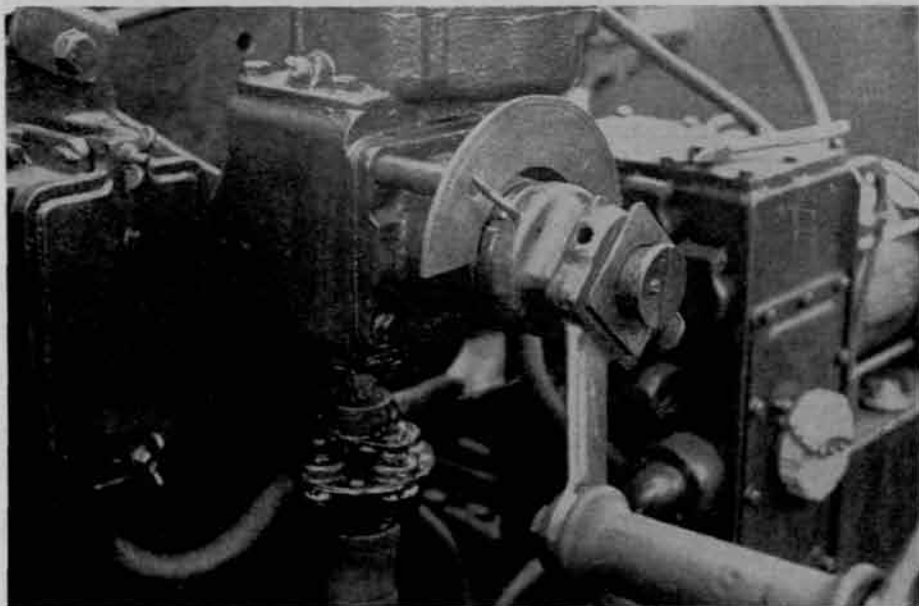


Photo 1—Azimuth Scale.

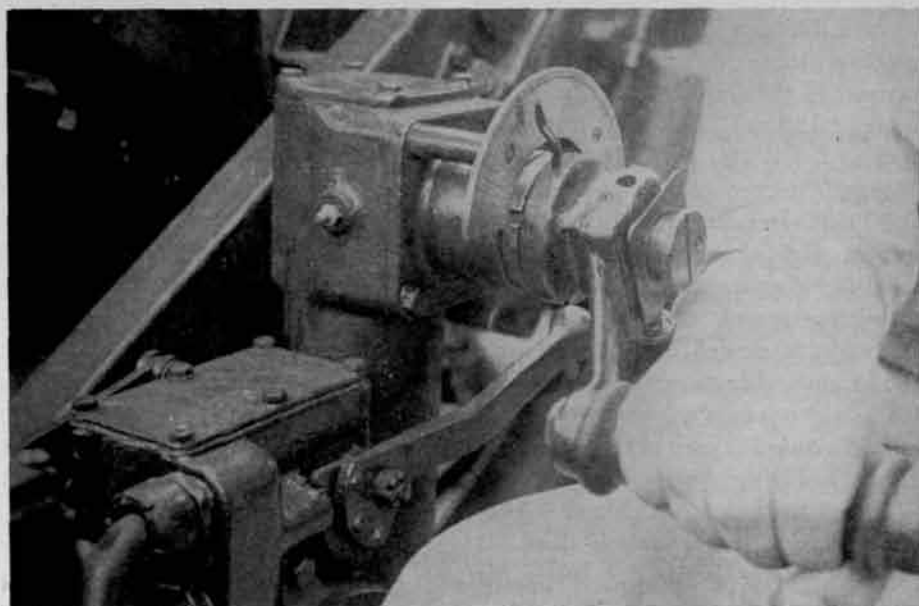


Photo 2—Elevation Scale.

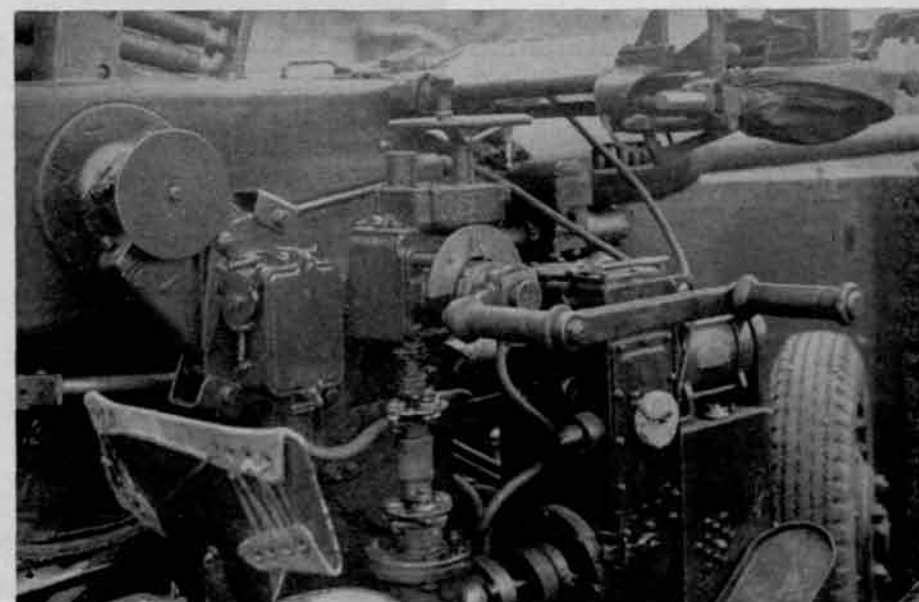


Photo 3—Azimuth Scale.

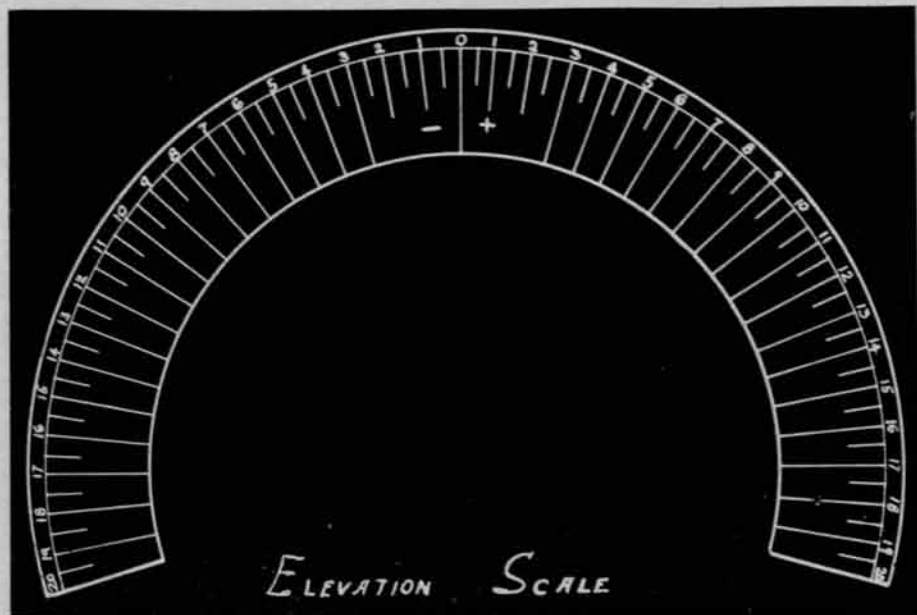


Figure 2.

in each direction. The azimuth tracker makes settings or corrections in the same manner as the elevation tracker. To set in right 150 mils, he would turn from zero to the R 100 mil graduation, disengage, reengage at zero and turn off R 50 mils. In order to facilitate the setting in of deflections of more than 300 mils, index marks are inscribed on the scale properly and marked. If a 300 mil deflection is desired, the tracker turns the handwheel from zero to the 300 mil mark, which is four mils short of the 304 mils in a complete turn of the crank. See Figure 3. The error in meshing the gears is about two mils or a ground impact error at five thousand yards of about ten yards. This error is also absorbed in the first burst.

PROCEDURE

ELEVATION. Initially the carriage is leveled with a gunner's quadrant. Then the tube is set at zero with the gunner's quadrant. With a sharp instrument a hairline mark is made on the elevation plate mounted on the breech casing and a corresponding mark is made on the indicator mounted on the left trunnion. This gives a fine zero line, which, when the gun is level, enables the elevation tracker to set the tube on zero elevation. Prior to setting in elevation for a terrestrial mission, the elevation tracker sets the tube on zero using this index. He then disengages the crank and sets the indicator on the base of the sleeve to zero on the elevation deflection scale and engages. The elevation scale is

now oriented on zero mils. He is now ready to set in the elevation for present fire mission.

The fine line marked on the breech casing elevation indicator will remain constant unless major damage is done to the gun causing damage to either the elevation plate or trunnion indicator.

If time allows, the elevation indicator should initially be zeroed using a gunner's quadrant. This will give accurate elevations even though the mount is slightly off level.

Azimuth. When the gun is oriented for antiaircraft fire the azimuth speed ring sight is oriented. An easily distinguished aiming point is chosen preferably in the field of ground fire. The azi-

muth tracker lays the gun on the aiming point using the speed ring sight. He then disengages the crank and engages it with the azimuth indicator set on zero on the deflection scale. He is now ready to lay the gun on the target as soon as he gets the aiming point deflection.

Using these scales the gun can be fired in the same manner as heavy AA Guns are fired, that is, using the target grid, range deflection fan, etc.

A BASE POINT is picked in the observer's field of view and plotted on the firing chart. The deflection from the gun aiming point is determined using the deflection fan and transmitted to the gun as "from aiming point Left (or Right) 180 mils." The site of the target is determined as plus or minus in mils. The elevation is taken from the graphical firing table (GFT), added to the site and sent to the gun in mils as "Elevation 32 mils."

At the gun, when a fire mission is given, the azimuth tracker using the previously oriented speed ring sight, sets the gun on the aiming point and zeros the indicator. The elevation tracker sets elevation to zero on the Breech Casing scale or with the gunner's quadrant and zeros the indicator. They then set in the required fire mission firing data, disengage the handwheels and reengage at zero. Both are now set to correct observer sensings from zero. After the first round is fired, the fire direction center personnel plot the observer corrections

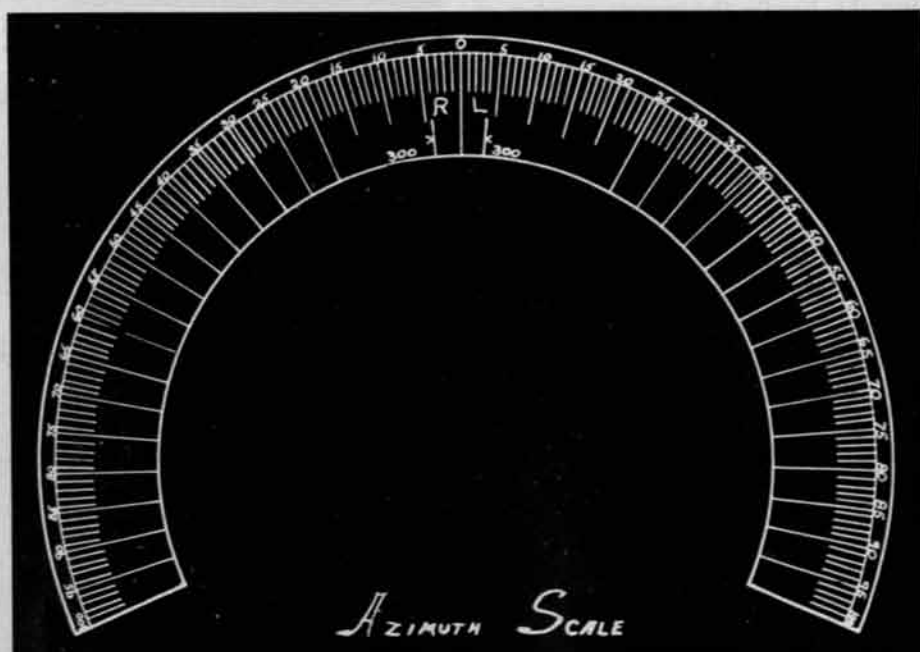


Figure 3.

and, using the GFT and range deflection fan, determine the azimuth from aiming point and elevation from zero for the next round. The differences between the corrected data and the data used to fire the first round are determined and sent to the gun. The trackers set the correction data on the scales but do not disengage the handwheel unless the correction is so large that it cannot be set off on the scale. In this case the tracker would set off the deflection and rezero the indicator. The second and following rounds are fired until a one mil elevation bracket and a two mil azimuth bracket are reached. At this time the command to the gun would be, "Left (or right) 1 mil; add (or drop) ½; fire for effect." The gun would be set on single fire and the required number of rounds fired.

The fire direction center personnel keep track of the deflection from aiming point and elevation from zero for each round; when a target hit or proper bracket is reached they have arrived at a correct or adjusted azimuth from the aiming point and a corrected or adjusted elevation from zero. If a base point registration is fired, the corrected data are recorded in the fire direction center. When the observer sends in a new target using the Base point as a reference the deflection from the base point is computed, added to or subtracted from the

recorded aiming point base point deflection to give a firing deflection from aim-

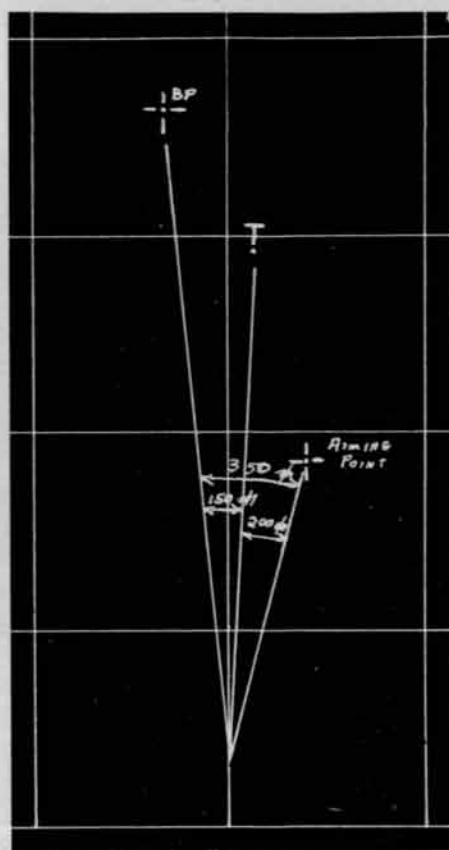


Figure 1.

ing point which is set on the gun.

Example. The deflection from an aim-

ing point to a base point is determined by registration to be Left 350 mils. A target is observed which has a deflection of right 150 mils from the gun Base Point line. The target's aiming point deflection is left 200 mils. See Figure 1. The quadrant elevation (firing table elevation plus or minus site), and the aiming point deflection of left 200 mils are set and the first round is fired.

In most cases the "T" angle will be less than 100 mils. The observer sends in his lateral deviation in yards; the mil deflection correction can be computed at the gun by using the 100 over R scale on the GFT, or by using the mil rule.

This system can also be used in direct fire at stationary targets. The trackers lay the gun originally using the conventional sighting systems and then use the azimuth and elevation scales to apply corrections after the first burst. Corrections come from someone at the gun observing the target with binoculars.

The system described is simple enough for all members of a gun section to understand. A thirty-minute instruction period plus a few firing problems will make them experts. A combination of this procedure with forward observer techniques and map reading will make each 40mm gun section an effective surface gunnery unit, ready for action under most any battle conditions.

You face a fanatical foe to whom life is cheap and death commonplace.

In battle your enemy has no qualms about charging into withering fire. They know that hesitation will only bring death from their own officers' guns.

Your training is rugged to enable you to face the enemy—and live. You are conditioned to hardships and fears and confusion of battle.

You are not going into combat without understanding. Every officer in the Army is under orders to make clear to every man the reason why he will fight, and the nature of the victory he strives to win.

You will have at your command the best medical care obtainable in the world.

While our immediate aim is to prepare you for battle, ultimately we intend to bring you safely home strengthened morally and physically.

You who enter military service compose the finest group of men and women in the world. You have a belief in God, in decency, in fair play, and in the truth.

And a strong determination to remain free, and to help protect freedom for all mankind.

(From an article by Gen. Mark W. Clark appearing in a recent issue of "See" magazine.—Ed.)—Armed Forces Press Service.



"Maxim Gorki"—Soviet Propaganda plane over Moscow's Red Square.

MASS TERROR:

The Key to Communist Control!

By Andrew M. Denny

ONE third of the world's population—more than 800 million people—is today controlled by a few power-mad men in

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the Kremlin who manipulate these people with an aggressive world-wide communistic organization which numbers less than two per cent of the peoples it controls. And as more and more people fall under the spell of this evil group, an understanding of how it is able to maintain this control is essential to those who would avoid also becoming its victims.

It would, of course, be fallacious and misleading to attribute the success of the communist rule over the masses to any one method of control. Actually the

bolshevik rule of terror is a highly perfected and intricate system of total intimidation which is based upon the skillful interplay of many agencies and of many techniques of control. It is a system of total terror, planned in nature, and it may be individual or mass in impact. It invariably hovers over all the members of the Soviet society, and systematically liquidates all real and potential opposition.

It stifles freedom of thought, makes everyone suspicious of everyone else, reduces contacts with kindred people,



Military might in Red Square.

and undermines faith in the usefulness of any action against the communist regime.

The system of terror and intimidation, as it is practiced in the Soviet Union and her satellites, is not purely an invention of the bolsheviks. This is one of the few things which, I am sure, they will refrain from claiming to have been the first to invent! The use of terror to rule the masses is as old as history. As practiced in the communist world, however, it is different only by its high degree of development, the multitudinous ways in which it is used, and the universality of its application. Today, no one within that stricken area is without fear and suspicion. The tragic part of it all consists in the fact that everyone there can become unwittingly an "enemy of the State," and quickly be liquidated. Everyone—from high ranking Party official or a simple worker—must be reconciled to the idea that he may be arrested, defamed, tried, tortured, exiled, or executed, whether he has committed a crime or not. This system of planned guilt weighs heavily upon all men and women under Soviet control. It hypnotizes the population and weakens its will to resist—it is the principal reason for the success of the Soviet regime. Most of these measures have by now been introduced in one form or another into the areas recently occupied by the Red forces.

THE Soviet regime is, of course, forced to rely upon these measures in

order to maintain itself in power. Most emphatically its remaining in power is not due to the free volition of the masses or to legal elections. Because they themselves have usurped power, the Soviet leaders are obsessed with the fear lest someone else should wrest their power from them. Thus fear is felt throughout the Soviet Union and her subject nations—in suppressed and suppressors alike. The primary techniques and agencies used by the communists are outlined below.

Propaganda, which in the areas under Soviet control pervades every aspect of the lives of the people, and which is responsible for the projection of an unreal world of myths, fictions, and illusions. Communist ideas are camouflaged and identified with the hopes and aspirations of the people, and one of the greatest fictions is that of mass participation in government. Propaganda may be directed against an individual, or at the population as a whole. When directed against an individual, it takes the form generally of public criticism for his "transgressions," in which he is branded with such titles as "saboteur," "wrecker," "deviationist," "bourgeois nationalist," or even "social butterfly"! Mass propaganda is often camouflaged as education.

Mock Trials, which pin the responsibility for the chronic failure of the Soviet economy to reach its goals upon a few, who almost always "confess," and are quickly and effectively punished or liquidated.

Selecting a Corps of the Faithful,

which has as its primary purpose the elimination of potential opposition, is used also to integrate the ablest young people into the Party. The most enterprising and promising of the masses are selected for special treatment, and these and the members of the Party are both carefully cultivated to be different from the masses. They are encouraged to take pride in their social, political, and economic status. Thus the rulers hope to create a "reliable" class of technical workers, military and state officials, and shock workers upon whom the Party may rely in times of crisis.

Awards and Decorations and Uniforms, which are awarded in great profusion, are used to inculcate gratitude toward the rulers. Since 1943, millions of these have been freely dispensed for this purpose. New uniforms have been designed further to differentiate between the hard core and the junior partners of the system. There is scarcely an individual today in the Soviet Union who does not have some kind of uniform, or badge of distinction.

Power over One's Fellow Citizens, which is either afforded to large numbers of people or promised to them, has created a very unhealthy lust for power among the communist subjects. Thus, even though each individual must be subject to someone else's authority, he is given additional authority over others to compensate him. This is one of the fundamental methods of the bolshevik art of coercion.

Collective Responsibility and Universal Guilt. In a free society, each citizen is responsible for his own individual actions before the law, but in the Soviet Union and areas dominated by the Reds, every man, woman, and child is held responsible not only for his own actions but also for the actions of all others around him. He is held liable for the deeds—and even the possible deeds—of his relatives, friends, members of the group with whom he works, his military unit, and even his casual acquaintances.

This feeling of collective responsibility has the result of making practically everyone guilty—or at least to feel guilty of a myriad of crimes, to intensify the feeling of fear and insecurity, for there is the ever-present likelihood of sudden arrest or disappearance for any act that one might have done in the past, or even for ones that one might possibly do in the future.

Fear of one's past is a very real and present fear. His social extraction, his former activities, his acquaintance with others who may later be declared hostile to the state—any of these may be used by the public prosecutor against him. Even the highest party and government officials are dismissed at times because of deeds committed twenty years earlier.

Soviet cultural workers, such as scientists, professors, educators, journalists, and composers, live especially in constant dread of their past. For if they follow the Party-line at one time in their work, they will be out of step with the least change in the Party-line. For example, the line in the 1920's portrayed the Tsars as "bloodthirsty exploiters and vampires," and cultural workers were required to conform in their work. However, in the late 1930's the Tsars became by official decree "defenders of Holy Mother Russia," and those who had carried the previous version had to recant their errors or suffer the consequences for "improper interpretation of the Party-line."

Inability to follow the current version of the Party-line—or even failing to read it—may result in public defamation, vitriolic criticism, or death. Even the most innocent of actions may bring down the wrath of the authorities: Physical inability to surpass the daily quota of work may be interpreted as sabotage, or as potential opposition to the regime; failure to appear at a collective meeting may be interpreted as lack of interest; even the most casual of remarks may be misinterpreted.

The conjecture of guilt takes on extreme forms: Every foreigner *must* be a spy; every priest *must* be an agent of fascist reaction; every engineer *must* be a potential saboteur. As a result of this fantastic process, innocent people are death for the reason that they "may be often arrested, tried, exiled, or put to capable" of committing an anti-Soviet action, or of anti-Soviet thinking.

Of course, always the Soviet subject is taught that the interests of the individual are wholly subordinate to those of the Soviet Union, that the individual's life means nothing except in terms of service to the state, and that it would be the least to expect that he would be sacrificed for the "Motherland."

Economic Pressure, which is designed to make everyone completely dependent upon the state for his existence, is



Red Army girl M.P.'s use colored flags to direct traffic.

drastic and intense. Needless to say, Soviet workers have no rights whatsoever. There are labor unions, but they are not for the purpose of seeing to it that the workers get better working conditions; they are solely an instrument of control over the workers. The state can ration the amount of food to be issued to each worker, and the deprivation of a ration card is a common punishment. The state also controls the living space in apartments, and uses this control in the same way as the ration cards. These policies apply to millions of collective workers, who are thus reduced to nothing more than serfs of the state, tied down to their jobs. There is, of course, no changing of jobs or mode of employment without permission.

The control of food is also used as a means of encouragement to the "faithful." Certain privileged classes are well taken care of, even have certain stores which cater to their wants, and in which only the Soviet elite are served.

Purges. Probably the most infamous of the Soviet practices is the system of periodic purges designed to "cleanse" the masses of undesirables, and to instill fear into those who remain. During the waves of purges, individuals or whole groups of people may be earmarked for liquidation, and they and the masses are carefully prepared for it by attacks in the press, then the unfortunates are arrested, tried, found guilty, and exiled or destroyed. Purges serve the Soviet masters

in several ways: (1) to keep the population in a state of perpetual fear and dread; (2) to eliminate or neutralize the effect of dissidents within the population; (3) to distract the masses from, and to find scapegoats for, shortcomings of the Soviet system, such as the chronic food shortages, and to focus attention instead upon supposedly discovered "agents of imperialism" who are claimed to be responsible for poverty and hardships of the people; (4) to preclude a group of people from banding together to form organized resistance to the rulers by shifting the purges around from place to place; (5) to keep the Security Services of the Soviets in combat readiness to forestall any threat to the rulers; and (6) to provide the concentration camps with a prescribed quota of fresh laborers.

PURGES are of two kinds: public, and secret. During public purges, the activities of propaganda are greatly intensified. Press and radio are filled with hysterical accounts of "anti-popular activities of fascist spies," and "confessions of foreign murder squads," prior to the actual purging. Since 1930, however, secret purges have been more often used. Strictly speaking, purges, or "cleansings" as they prefer to call them, constitute an accepted practice of the Communist rulers. It is impossible to estimate how many people have been purged, but it is safe to say that they number many millions. Following are listed some of the more significant and intense purges:

a. Before the introduction of the New Economic Policy in 1921, there was a purge in which one to two million people were liquidated. These included Tsarist army officers, remnants of the middle classes and other "undesirable" elements.

b. Before the introduction of the Five Year Plans in 1928, when the Trotskyite opposition collapsed, there was another great purge.

c. During the years 1932 and 1933, toward the end of the First Five Year Plan, came another.

d. Then between the last two purges above, there was a series of minor purges, which included people in the administrative and technical departments of the government and of the Party.

e. The greatest purge occurred in 1937-1938, during the "Times of Ezhov," named after a Commissar of Internal

Affairs, who was himself later purged. The purpose of this purge was to destroy all opposition to Stalin.

f. There was a pre-World War II purge, which "cleansed" the "political unreliaables" from the frontier areas and the newly acquired regions of Bessarabia, Eastern Poland, Estonia, Latvia, Lithuania, and Finland.

g. Then came a post-World War II purge, which began in 1944 and which has continued ever since. It took care of hundred of thousands in the areas re-occupied by the Red Army. It went into some five to six million Russian forced laborers in Germany and Central Europe, who refused to go home, and into the Nazis' Russian prisoners of war. It also descended upon certain elements of the Red Army of occupation who were adjudged to have become "contaminated" by Western culture, and the "unhealthy bourgeois environment."

h. One purge, in which the system of collective responsibility was invoked, was the case in which all of the Germans of the German Volga People's Republic were held responsible for the potentially dangerous actions of their fellow citizens, and were exiled as a group—more than a million of them. This same policy was applied to the Tartars of Crimea, the Checheno-Ingushes, the Kalmucks, and others.

Purges enjoy a certain morbid popularity among the politically ambitious. For by means of the planned purges, many important positions are vacated annually in the Party and in the government. These are filled by candidates who are grateful to the rulers for an opportunity to elevate themselves above the masses and enhance their living standard. Of course, they too may be purged later, but there is always the hope that the purges will not affect them. This introduces a dog-eat-dog psychology among the Soviet officialdom, and consequently the files of the State Security agencies are always filled with denunciations, reports, and incriminating evidence turned in by the ambitious.

The Agencies of Intimidation. Although controls over civilians are a function of every governmental and party institution in the USSR, the specific responsibility for control is concentrated in the Ministries of State Security and Internal Affairs (the MGB and the MVD).

These were originally designed as the CHEKA (Extraordinary Commission), as the GPU (State Political Administration), and as the NKVD (People's Commissariat of Internal Affairs). With each change in designation, the functions of these organizations greatly increased in authority and scope until at this time, they envelop all phases of life and activity in the Soviet Union and her satellites.

Stalin and Beria exercise direct control over the organs of State Security through personally appointed subordinates. This control is exercised through the media of the Party, the State, and through the State Security agencies; and affect the Soviet subject in the following ways:

a. As a Soviet citizen, he is controlled by a number of State organizations, such as labor unions, units of the armed forces, and various clubs and societies, as well as by local and regional organs of the Communist Party.

b. As a "potential enemy" of Soviet Society, he is under the continuous surveillance of the organs of State Security. This surveillance is accomplished in one or more of the following ways:

- ▶ Through village political sections.
- ▶ Through special sections of factories or other places of work.
- ▶ By means of "special departments" of the armed forces.
- ▶ By hundreds of thousands of secret informants recruited by the organs of State Security.
- ▶ By means of special identity papers and the entire system of passports, used even within the Soviet Union.

Some of the functional organizations used in the system of controlling the masses are the following: 1) The Workers and Peasants Militia, 2) fire departments, 3) the administration of the concentration camps, 4) the administration of the "Corrective Camps," 5) the Statistics and Archives Departments, 6) ZAGS (Bureau of Vital Statistics), 7) the counter-intelligence agencies, 8) SMERSH, the so-called "Death to Spies" sections in the armed forces, and 9) even the Department of Highways, railroad departments, and other such agencies!

Soviet Concentration Camps often serve as corrective schools for citizens

who may have deviated from the Party-line. After a few years in a camp of this kind, a man is released, physically and mentally broken, at which time he is willing to do anything that he is told rather than go back. These men make good informants, for no matter how hard a life he must lead as an informant, it is better than camp life. Other camps are used as "slow-death" punishment for real or imaginary crimes, from which men seldom return.

The Total Result. In total result, all of these agencies and all of these techniques are extremely effective. They are used in waves in ingenious combination. After a wave of horror, living conditions begin to improve slightly once again, and the masses are urged to exert themselves as never before to bring about an era of prosperity. In times like these, life seems to be getting better, but then when claims of the governmental officials, as expressed in the official propaganda, do not materialize, the country is plunged once again into the throes of artificially sponsored spy trials, exiles, purges, etc., and the widespread fear of the Soviet regime is given another shot in the arm.

In my opinion, however, the fear of the rulers and of one's fellows is not as bad as the fear of oneself that this system engenders. An individual must be continuously on guard, for a chance remark, a wrong step, or a misinterpreted action of any kind, could bring disaster upon any individual in the Soviet Union.

Hope for Relief. In the Western World, many intelligent people wishfully delude themselves with the hope that a mass uprising will occur in the Soviet Union to destroy this iniquitous regime that is the most systematically organized, most scientifically run scheme of evil ever perpetrated against the human race. The holders of this hope point to the early stages of World War II, when in Soviet territory invaded by the Nazis, the people welcomed the invaders, and revolted against their own rulers.

However, they had the courage to do this only with the strength of an invading army behind them. These incidents, I feel, may be used as an indication that there is not popular support for the Soviet Regime, but not as an indication of the possibility of popular revolt.

Internal revolt is possible, I feel, if the Western Powers stand in fearless, unwavering determination against the lawlessness of the Kremlin, using every

resource that is necessary—in men, money, material, thought and heart—to stop in its tracks every incursion of the Bolsheviks into the free world.

Then the masses under the Commu-

nist heel may see that their overlords are no longer all-powerful, that they are not able to fulfill their claim to conquer the world. When that occurs, then perhaps the Soviet masses can shake off the fear

of the Soviet terror, and we can hope for the growth of internal resistance to the horror and intimidation that today characterize every segment of the Communist world.



Status Of Training Literature

Three field manuals, FM's 44-27, 44-28, and 44-20, prepared at AA & GM Br, TAS, Fort Bliss, Texas, have been published and distributed by the Department of the Army since the first of the year.

FM 44-27, Service of the Piece, 90mm AA Gun, M2 Series, and FM 44-28, Service of the Piece, 120mm AA Gun, present systematic procedures for emplacement and march order and for artillery drill on the matériel with which they deal. Preventive maintenance, destruction of matériel, and safety precautions are covered. Each includes a proposed minimum training schedule. Both are profusely illustrated with photographs of gun crews on the matériel.

FM 44-20, Mounted Formations and Inspections, Antiaircraft Artillery, is a guide for AAA units including brigades in the preparation and execution of mounted reviews, parades, ceremonies, and inspections. Diagrams show the positions of units and individuals in various formations. Check lists for command inspections are included.

Four additional manuals have already gone forward to OCAFF for final approval and publication:

FM 44-19, Examinations for AA Artilleryman, contains an outline for testing expert, first class, and second class gunners in various types of AAA units.

FM 44-57, Service of the Piece Multiple Caliber .50 MG Motor Carriage M16 and Multiple Caliber .50 MG Trailer Mount M55, and FM 44-60, Service of the 40mm Gun and Associated Fire Control Equipment, contain much-

needed information for light AAA units and are well illustrated.

TM 44-225, Orientation for Artillery, contains many illustrations and charts. It covers advanced map reading, surveying, astronomical observations, and a complete description of grid systems.

A number of other manuals are in final stages of preparation:

FM 44-1, AAA Employment, is concerned with employment of AAA units above battalion level. Command, control, and relationships with other combat arms are covered.

FM 44-38, Service of AA Directors M9, M9A1, M9A2, and M10, covers duties of personnel in using and maintaining this matériel.

TM 20-300, Radio-Controlled Airplane Targets, describes the operation and maintenance of this equipment.

Changes to several manuals are also being prepared:

FM 44-2 C1, Indirect Fire Methods for Light AAA, will cover techniques and procedures for indirect fire on surface targets by light AAA.

FM 44-4 C1, Basic Tactical Principles for the Employment of Medium and Heavy AAA Guns in Air Defense, has the same purpose and scope as TC 18 which was published by DA on 27 December 1950.

AA & GM Br, TAS, has also forwarded three training circulars for approval and publication. These will cover AAOC and AAAIS, Service of AAFCS T33, and Basic Tactical Principles for the Employment of AAA Guns in Air Defense.

Training Circulars on Service of the T69 (Skysweeper), which is classified CONFIDENTIAL, and the AN/TPS-1D are in preparation. The AN/TPS-1D is an acquisition radar used by anti-aircraft artillery as part of the warning system.

Special texts used by students in resident instruction are sold to Armed Forces personnel through the Book Department, AA & GM Br, TAS, Fort Bliss, Texas, and may be ordered by mail. Prices include postage. No C.O.D. orders can be filled.

The following special texts are currently approved for use in resident instruction at AA & GM Br, TAS: 44-2-1, Employment of the AAA AW Battalion (Aug 50); 44-4-3, FA Gunnery for Heavy AAA (Aug 50); 44-8-1, AAOC & AAAIS (May 51); 44-38-1, Operation of M9 Type Director Equipment (Apr 50); 44-150, An Introduction to Guided Missiles (Aug 50); 44-151, Heavy AAA Matériel (May 50); and 44-260-1, Flak Analysis (Feb 50).

Special text 44-4-1 (AA & GM3), Heavy AA Gunnery and Fire Control, has been superseded by FM 44-4; ST 44-4-2 (AA & GM4), Employment of Heavy AAA in an AA Defense, by TC No. 18; ST 44-4-2 (Revised), Basic Tactical Principles for the Employment of Medium and Heavy Antiaircraft Artillery Guns, by TC No. 18; and ST 44-4-4, Heavy AA Gunnery, by FM 44-4.

The Book Department lists special texts 44-151, 44-4-4, and 44-38-1 at 50¢ each; 44-4-3 at 60¢; 44-2-1 at 75¢ and 44-150 at \$1.

WHAT SHALL I DO WITH MY GOVERNMENT INSURANCE?

By Major Kenneth F. Hanst, Jr., Retired,
and the Journal Staff

THAT is the question from every post and outpost, referring both to U. S. Government Life Insurance—USGLI—and National Service Life Insurance—NSLI. The Army Mutual Aid Association has been happy to aid members in arriving at the proper answer in their individual cases.

While we cannot give here the approved solution to fit all cases, because of the different personal factors, we can give a definite recommendation to most servicemen and some pertinent advice and pointers to those who have borderline cases. First, let us review the salient features of the Serviceman's Indemnity and Insurance Acts of 1951.

The Indemnity Act provides that all members of the Armed Services on active duty, including cadets and midshipmen at the service academies and the National Guard and Reserve on duty for 14 days or more, are insured automatically against death in the amount of \$10,000 without cost to the servicemen. This gratuitous coverage of \$10,000 will be decreased by any amount of NSLI or USGLI in force. Every person on active duty has a government insurance of \$10,000, but no more. The gratuitous insurance extends 120 days after separation from the service.

Beneficiaries may be named by the insured and changed at will so long as they are members of his immediate family, and he may specify what proportion

of the indemnity is to be payable to each, if more than one is named. If no designation of beneficiary is made, the indemnity will be paid to the first eligible beneficiary in the order of spouse, children, parents, and brothers and sisters.

If the insured dies, the payments must be made in equal monthly installments over a period of ten years. There are no options. Where the gratuitous insurance is \$10,000 the monthly payments amount to \$92.90.

For those leaving the service with service-incurred disabilities because of which they are not insurable according to Veterans Administration standards for National Service Life Insurance, a new category of permanent insurance will be available, and it will include waiver of premiums for total disability, but no payments during the life of the insured. This insurance will be similar to standard NSLI policies, except that it will be non-participating, the monthly cost will be slightly higher under the new tables, and likewise the optional annuity settlements will be less favorable.

All others who have had the gratuitous insurance and who are separated from active service will be eligible without medical examination for a new type of five-year, level premium, renewable term insurance upon leaving the service. This new term insurance will *not* be convertible to a permanent plan.

THE 1951 Acts establish definite benefits for those in the service who now hold policies of NSLI or USGLI. Premiums for term policies will be waived during the period of active service if the insured makes application to the Veterans Administration. Policies of permanent types of insurance may be surren-

dered for their cash value, in order that the insured may take advantage of the free coverage, and then later reinstated, contrary to previous practice which did not allow reinstatement of policies which had been surrendered for their cash value; or the insured may request waiver of that portion of his present premiums which the Veterans Administration determines to be applicable to the "pure insurance risk," figures for which are not yet available. In the latter case, the insured would continue to pay the balance of the premium while in active service and would resume paying his present premiums after leaving the service.

Waiver of premiums for Total Disability Income Provisions is *not* authorized. Such premiums must be paid if the provisions are to remain in force. Such insurance lapses with cash surrender.

No dividends are payable during the period in which waiver of premiums is in effect whether for term or permanent type policies.

ANALYSIS

TERM Insurance holders have the options, 1) to request the waiver of premiums, or 2) to continue NSLI term premiums in effect. The second option offers *no* advantages whatever. The holder gains no advantages for paying the premiums, and if his separation from the service occurs after the end of the five-year term, evidence of good health is required to obtain a new NSLI term policy.

If waiver of premiums is requested, the holder gets his insurance free; when the term expires it is automatically renewed for five years more and continued free. He also retains the great advan-

Major Kenneth F. Hanst, Jr., graduated from USMA in 1942; served with the 28th Infantry Division in 1943 and 1944. In November, 1944, while commanding a rifle company in the Hurtgen Forest he was severely wounded by artillery fire, in which action he was awarded the bronze star medal for valor. He retired from the Army in 1947 and is now Secretary of the Army Mutual Aid Association.

tages of all rights and privileges presently available, such as conversion to a permanent plan; freedom in the selection of beneficiaries; and the choice of optional settlements, particularly the option which provides for the beneficiary liberal monthly payments with a lifetime guarantee. Even payment over a ten-year period as provided for the free coverage is available, but instead of the \$92.90 monthly payments provided under the indemnity, NSLI beneficiaries could receive \$96.10 a month and USGLI beneficiaries, \$93.30 a month. The first option, to request waiver of premiums, offers the definitely advantageous choice.

Recommendation. Those whose insurance is presently on the term plan *should apply immediately* to the Director of Insurance, Veterans Administration, Washington 25, D. C., for waiver of their premiums. V. A. forms are available at each post. The local Finance Officer should be consulted regarding cancellation of the Class D (USGLI) or Class N (NSLI) allotment, bearing in mind that if the Total Disability Income Provision is in force and is to be retained, that portion of present premiums must be continued.

PERMANENT Plans of Insurance present more of a problem in decision. The policy holders have the options 1) to request waiver of premiums, 2) to surrender the policy for its cash value, and 3) to continue the policy in force.

It is well to point out here that the USGLI and the NSLI policies are worth considerably more than indicated in their face value. The USGLI policies are based on an earning of 3½ per cent per annum on your money, the NSLI policies on 3 per cent; whereas the gratuitous indemnity policy is based on an earning of 2¼ per cent. The disability provisions in some of the USGLI and NSLI policies can be obtained now only upon proof of good health and at great expense.

The optional settlements offer real advantages. For the widowed beneficiary who desires a life annuity with 20 year guaranty (option 4 NSLI) the \$10,000 policy is worth well over \$12,000. For comparative purposes some of the USGLI policies with the total disability provision may properly be appraised at around \$14,000.

The insurance needs of the family are

also pertinent. The married officer with young children is at that period of life when his insurance needs are at the maximum. If he has no other sound investments or other means to supplement the insurance protection, the Army Mutual Aid Association considers that he needs from \$30,000 to \$40,000 in insurance.

Ordinary life insurance provides the greatest permanent protection for each premium dollar; should the need arise later, it can be used to provide the features of an endowment or paid up policy. *Its sound features put it first on our recommended list for most people.*

WAIVER of Premiums will be granted upon application to the Veterans Administration as in the case of term insurance, but this waiver will be effective only on that portion of the premiums representing the cost of the "pure insurance risk," leaving the balance of the premium payable. All dividends are forfeited during the period of waiver.

Advantages:

- ▶ Same plan of insurance at reduced rate since the government takes over the "pure risk" portion of the premium; savings may be applied to additional insurance.
- ▶ Retention of the good features of NSLI or USGLI insurance including the favorable rates, the reserve, and the optional settlements.
- ▶ Policy continues throughout active service plus 120 days and may be continued thereafter without medical examination by resumption of payment of the full premium.

Disadvantages:

- ▶ Generally, there are no disadvantages in the waiver of premiums on permanent plans of NSLI; however, cash surrender may offer even greater advantage.
- ▶ Policyholders of USGLI with endowment policies, or 20 pay life ten years old, or any that have run for a long time may find that the amount of the premium to be waived as "pure risk" may be offset by the amount of dividend forfeited if he applies for waiver.

The "pure risk" waiver rates have not yet been published. However, you can estimate your rate. Take your policy and enter the surrender value of your policy at the end of the current insurance year. (Policy shows this per \$1,000. You enter for full policy.) Divide this amount by 1.035.

From the quotient thus computed subtract the surrender value of your full policy at the end of the preceding year. You now have that part of the annual increase in value which you have to pay for by premium, or you have the portion of premium applied to accrued value. Subtract that amount from the total annual premium and you have approximately the amount which the V. A. will waiver. If this amount is less than your annual dividend, *then you lose by the waiver.* The annual dividends increase with age of policy from around \$5.00 up to around \$13.00 per \$1000 per year.

Take the case of Colonel Ducrow who in 1937 converted to USGLI ordinary life policy, \$10,000, at age of 43; annual premium, \$265.80; current dividend, \$62.30; surrender value end of 13th year, \$2509.30; end of 14th year, \$2723.90.

Computation: $\frac{\$2723.90}{1.035} = \2631.80
 Subtract 2509.30
 \$ 122.50

Annual premium\$265.80
 Part to accrued value 122.50
 "Pure risk"—waiver part ...\$143.30
 Annual dividend 62.30
 Col. Ducrow saves per year ..\$ 81.00

If you have an endowment policy, a twenty pay life ten years old, or old ordinary life USGLI policy, you will probably find that you lose.

Obviously, the waiver option does not apply to paid up cases.

Recommendation. Analyze your own USGLI policy accurately. If it shows substantial savings, or if you have NSLI, apply for the waiver unless you elect to cash surrender. Consult your unit insurance officer.

CASH Surrender. The permanent plan policy holder may surrender his

policy for the cash surrender value thereof and become insured against death by the gratuitous indemnity while he remains in active service and for 120 days after separation. Within such 120 days he may upon application be granted without medical examination permanent plan insurance on the same plan not in the excess of the amount surrendered, or he may reinstate such surrendered insurance upon payment of the required reserve and the premium for the current month.

Permanent policies under one year old have no cash value and cannot be replaced upon separations. They can be reinstated, but the conditions are unfavorable.

Advantages: Those who need more insurance protection than their present budget affords may increase their protection substantially by using the proceeds and the premiums saved to pay for additional insurance. In that case we recommend ordinary life which provides an option for life annuity. Since most army officers do need the additional insurance we recommend this option to them. *However, no government policy should be surrendered for its cash value until a contract for additional commercial insurance has been signed.*

For relative advantages in protection take the case of Major Roe, 35, who converted his insurance to a NSLI ordinary

life policy for \$10,000 five years ago; monthly premium \$15.60; surrender value \$557.00. Should death occur now, his widow, same age, would receive from NSLI in a life annuity with 20 year guaranty:

In ten years	\$ 5,040
In twenty years	\$10,080
In thirty years	\$15,120
In forty years	\$20,160

If Major Roe cash surrenders, he can procure \$8,000 additional nonparticipating ordinary life insurance in a sound company with the monthly premium of \$15.60. Should death then occur, his widow could receive from the gratuitous indemnity plus life annuity with 20 year guaranty from the new policy:

In ten years	\$14,201
In twenty years	\$17,254
In thirty years	\$20,306
In forty years	\$23,359

Or Major Roe could request waiver of premiums and procure an ordinary life policy for \$3,600 with the \$7.10 per month waived. Should death then occur, his widow under conditions similar to those above could receive:

In ten years	\$ 6,414
In twenty years	\$12,828
In thirty years	\$19,242
In forty years	\$25,656

Such analyses show that the immedi-

ate protection at a time of maximum need can best be enhanced by cash surrender. Against that, the serviceman who requests a waiver, takes more insurance with the saving, and who lives until his separation from the service, will then be in better shape as to insurance protection.

Since good commercial insurance may not be available to the serviceman overseas, he may well consider waiver of premiums until he can return to the States. Similar action is also recommended for those who are presently uninsurable with commercial companies for physical reasons.

If you have substantial loans against the policy, that would indicate advantage in surrendering the policy.

Disadvantages:

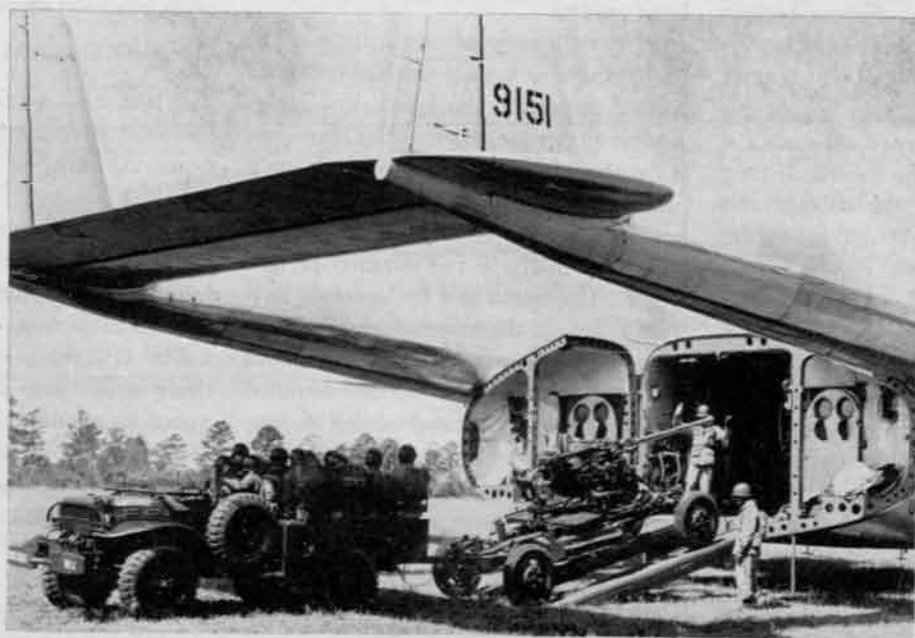
Temptation to dissipate the cash unwisely.

If the insured has a total disability income provision, that would lapse during the period covered by gratuitous indemnity and may be difficult to reinstate.

Unless the cash value is substantial and is well invested, or unless the savings are used to add to the insurance substantially, the family protection is decreased.

Recommendation. Study your insurance needs carefully. Consult your unit insurance officer, or other sound authority.

Army Mutual Aid Association members are invited to ask for assistance.



Loading 40mm gun.

THE BATTALION AAA SURFACE GUNNERY SCHOOL

By 1st Lt. Carl M. Guelzo, 3rd AAA AW Battalion

IN the March-April *ANTI-AIRCRAFT JOURNAL* Lt. Wm. B. Campbell in his article *FA Gunnery Training For AAA* gives an outline for a battalion school course. It is well worth study by a prospective instructor, particularly the references to ST 444-3, *FA Gunnery for Heavy AAA*, AA & GM Branch, TAS, and to FM 6-40.

My experience leads me to differ with Lt. Campbell somewhat in the shape of the course. However, my main effort here is to get down closer to the practical problems and limitations in the battalion.

No sales talk appears necessary. The AAA gun battalions simply have to conduct such schools, and the self-propelled AW developments in Korea indicate a need there. Fortunately, the subject is fascinating and fairly easy to learn for those who have sound basic arithmetic. There may be some difficulties about instructors, equipment, and time; still it is entirely practicable to conduct the school, and it is so essential to efficient battery and battalion training.

For instructors the school will require one officer (preferably the S-3 or his assistant) and one enlisted assistant for full-time duty during the course. If they are well grounded in the subject and have the lesson plans prepared before the course starts, they can conduct four hours' classroom work per day. The course requires 28 classroom hours' instruction, or seven working days. With experienced instructors and apt students the course can be done in one week.

The students in one class should be limited to 15, and include the battalion operations and intelligence sergeants, the master gunner, and four AAOC plotters; one officer and one enlisted man from each firing battery. Other battery personnel can be given the same training by the battery students in this course or by giving the course a second time for

them. In the latter case, four persons from each firing battery should be the maximum attending.

The course of instruction should be organized on the assumption that the students know nothing of the subject matter. Surface gunnery can be divided into two distinct phases: forward observer procedure and fire direction center procedure. Attempts to mix the two phases at the same time only serve to confuse the students. Forward observer procedure can be taught and understood without any knowledge of FDC procedure, but an understanding of what the FO is doing renders teaching and understanding FDC procedure much easier. *Conclusion:* Teach FO procedure first and make it a prerequisite to the FDC phase.

The FO phase requires the lesser amount of equipment. A classroom with tables, chairs, blackboard, chalk, eraser, field glasses, and a burst spotter are required. Let's take a closer look at the burst spotter.

In the absence of an artillery puffboard range or a slide projector, a good way of indicating the location of bursts with respect to a target in the classroom is on the blackboard. The reticle of a pair of field glasses is drawn on the blackboard, blown up to about three feet in length, with the 0 mil division on the target. The bursts can be "spotted" anywhere around the target with the burst spotter, which is simply a handle about two feet long with a round disc of metal three inches in diameter nailed to one end. One side of the metal disc can be painted black and the other yellow to indicate air and graze bursts.

THE FO phase can be taught in 10 hours divided as follows:

First hour. A conference introducing

the students to the basic fundamentals of FO procedure: organization of the FO party and means of communication; the mil rule; theory of the range bracket; flow of observer corrections and S-3 commands; types of fire; elements of initial data and subsequent corrections; announcement of numbers; field glasses.

Second hour. Practical period on the calculation of initial data using the mil rule and announcing initial fire request.

Third hour. Brief review of calculation of initial data using the mil rule; familiarization on use of rough trig method; introduction to the conduct of precision fire by base point registration.

Fourth hour. Conduct of precision fire missions.

Fifth hour. Conduct of precision fire missions and introduction to area fire.

Sixth hour. Conduct of area fire.

Seventh hour. Time fire in connection with precision and area fire missions.

Eighth hour. Mixed fire missions.

Ninth and tenth hours: Review, 20 minutes; examination, 60 minutes; critique, 20 minutes.

The ideal examination would involve taking the students out to an artillery range and permitting them to fire live missions. Forward observing is actually a skill—it involves being able to *do* something rather than just be able to answer questions *about* it. The object is to pose questions that enable the student to *use* what he has learned rather than just to parrot back academic principles.

Examination 1 illustrates a practical and objective type examination that was actually used in a gun battalion. The test should be just long enough for the slower students (not the slowest) to finish in the allotted time. The better stu-

dents will finish much earlier. There is no need to set up any fancy grading system. If the student's paper indicates that he can do the job, pass him; if not, flunk him. You are hoping, of course, that all can pass it.

have to be improvised. A mimeographed stencil on which are cut the scales to be found on the pertinent GFT will serve the purpose nicely. The scale itself can be constructed by using the tabular firing tables. The master gunner in the

dangerously erroneous idea about the scales.

THE FDC procedure phase can be taught in 18 hours, exclusive of actual range practice and brush-up periods, as follows:

First and second hours. An orienting conference: the meaning and objectives of fire direction; types of fires (observed and unobserved); function of the fire direction center; duties of S2, S3, VCO, HCO, and computers; elements of S3 fire order; computer's fire commands; and introduction to the equipment used in the FDC.

Third, fourth, fifth, and sixth hours. Practical periods on the construction of firing charts: use of the coordinate square in plotting surveyed points; color schemes; base points and check points; information to be included on tick marks; purpose and construction of the base point line index, the azimuth index, the target grid azimuth index; preparation of the range deflection fan.

Seventh and eighth hours. Duties of the horizontal control operator (HCO): reading the range deflection fan; marking the azimuth correction scale; use of the target grid, and announcing data. Sample missions should be worked out carefully in advance; however, don't worry a bit if the student answers vary as much as five mil errors in azimuth and twenty yard variations in range.

Ninth hour. Review duties of the HCO; duties of the vertical control operator (VCO); brief review of site and its function in controlling height of burst; further drill in announcing data.

Tenth and eleventh hours. Duties of the computer; use of the graphical firing table (GFT), and function of the computer's record in announcing firing data and data for replot; calculation of the azimuth correction scale and the concept of transfer limits.

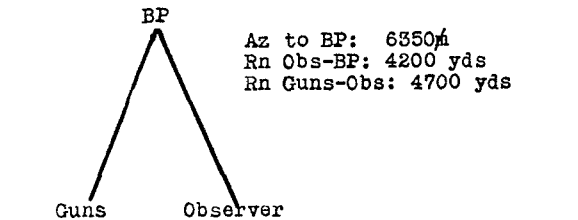
Twelfth and thirteenth hours. Duties of the S3 in precision fire; calculation of adjusted azimuth, elevation, and time; use of the FDC sensing and 1/2S tables.

Fourteenth, fifteenth, and sixteenth hours. Operation of the FDC in actual missions, with students rotating in the various positions of S-3, HCO, VCO, and computers.

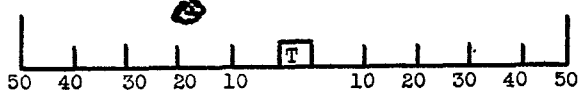
EXAMINATION--FORWARD OBSERVER PROCEDURE						
HEADQUARTERS 37TH AAA GUN BN (90mm) APO 503	Name					
	Grade	Battery	Date			
	Instructor					
	Score	Rating				
	%	Superior	Ex	VS	Sat	Unsat

DIRECTIONS: Read each question carefully. The questions contain information necessary in working the problem. Do your computations on this examination sheet and write your final answer in the spaces provided at the right.

1. You are a forward observer for Battery B, 3d AAA Gun Bn which has just gone into position. Your S-3 wishes you to register on the base point. Your position is illustrated in the accompanying sketch. Write your initial fire request in the spaces provided at the right. SHOW YOUR COMPUTATIONS.

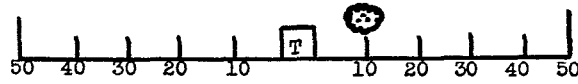


SITUATION CONTINUED. The first round appears as follows in the reticle of your field glasses.



Sensing
Correction

The S-3 announces "On the way" and the second round appears as follows in your field glasses.



Sensing
Correction

Examination 1.

THE FDC procedure phase requires somewhat more equipment. A field artillery chest will provide much of it in the way of plotting pins, colored pencils, erasers, and chart paper. Enough range deflection fans are also required to provide at least one fan per three students; also sufficient coordinate squares and map boards are needed. Probably the most difficult items to obtain will be graphical firing tables and target grids. GFT's for the 90mm gun should be available through normal supply channels; the GFT's for the 120mm gun may

37th AAA Gun Battalion did this job well, and also manufactured from pieces of acetate the transparent slides with horizontal guide lines (to keep the slide straight on the GFT scale) and hairline in india ink to go with the mimeographed scales.

Sufficient 1:25,000 range deflection fans and chart paper may offer another problem. Be sure both fan and chart paper are 1:25,000. Although using charts and fans of different scales makes no difference in illustrating principles and procedures, someone might get a

Seventeenth and eighteenth hours: Review, 20 minutes; examination, 60 minutes; critique, 20 minutes.

AGAIN, the examination should concentrate on the practical application of what has been learned, and still give a fair index of the student's knowledge of fire direction center procedure.

Examination 2 shows an actual examination that has been used satisfactorily. In the actual case the examinations shown in Examinations 1 and 2 were both given at the same time. We recommend that each one be given at the close of the respective phase, as indicated above already.

When the examinations are completed let the student know at once how he came out; better still, send the student's paper and grade through the battery commander.

It is much better to have the selected instructors give the whole course than to farm out various lessons to various instructors. They may be pretty well fagged out at the close of the course, but a bang-up performance by the battalion on the range will make the effort worth while.

Examination--Fire Direction Center Procedure

3. As HCO you find the true azimuth of the base point to be 420°. At the conclusion of registration on the base point, the adjusted azimuth is 435°.

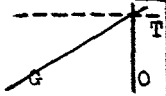
- a. On what azimuth do you draw the base point line extension?
- b. The azimuth index is drawn mils to the of the base point line index.

mi

Circle one
Right Left

mi

4. Using your GFT and necessary tables, fill in the following record of precision fire form:

RECORD OF PRECISION FIRE			S/2:	F:	
			T: 600m	Rn: 5300yds	
Azimuth	FDC Sensing	Elevation	FDC Sensing	Observer Corrections	
1708		315		L 200, - 400	
1738	L	321		- 200	
1728	R	317		/ 100	
1735	L	316		- 50, FFE	
1730		317		? R	
				? R	
				- Ln	
				/ Ln	
				? L	
				- Ln	
24.3 sec				A	
				G	
				AAA	
				AG	

- a. What is the adjusted azimuth?
- b. What is the adjusted elevation?
- c. What is the adjusted time?

mi

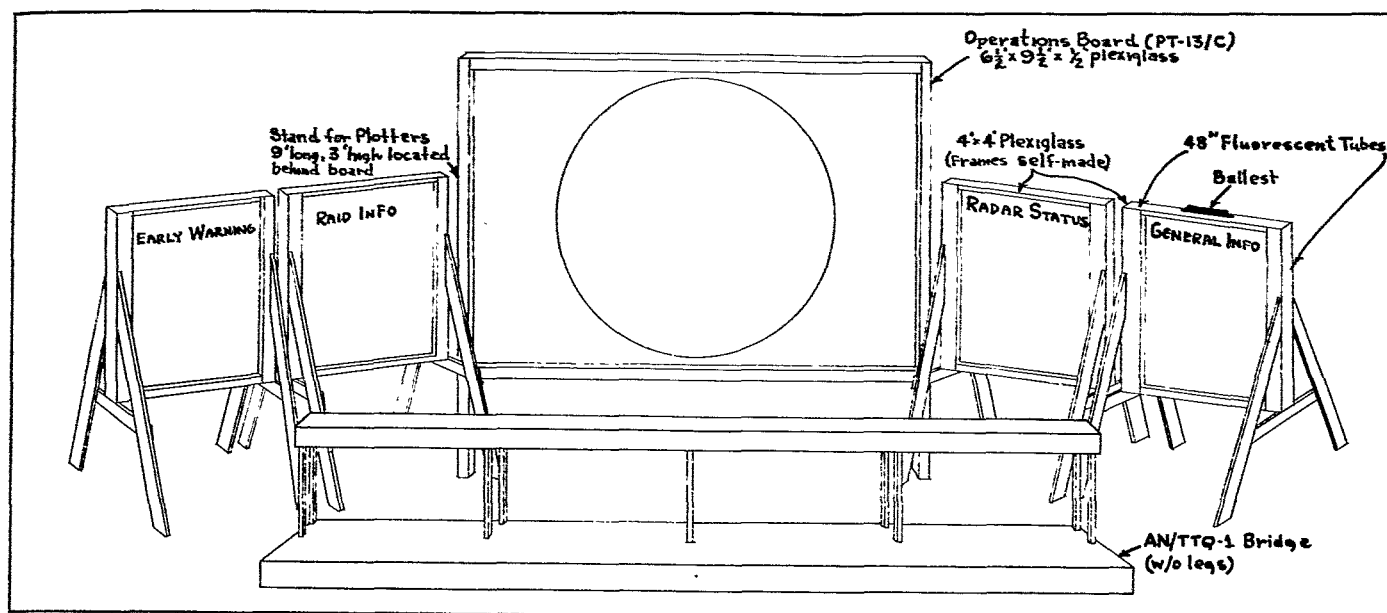
mi

sec

Examination 2.



An Associated Press dispatch from Washington said that modern, electronically aimed antiaircraft guns—not the spectacular Russian designed MIG 15 jet fighters—are taking the heaviest toll of American planes in the Korean war. Of the more than 200 United States air force planes lost to enemy action in 11 months of war, the great majority have been downed by fire from the ground—everything ranging from rifle fire to heavy flak. The Reds' ground gunners, using radar directed weapons, have hit B-29 bombers at altitudes well above 20,000 feet in air raids during recent weeks.



Using vertical plexiglass boards.

503d AAA Operations Detachment AAOC

By Captain R. R. Berger, Arty.

THE functions, Tactical Operations, and Command of an AAOC (Antiaircraft Operations Center) are covered by Field Manuals, Training Memorandums from the Artillery School at Fort Bliss and various SOP's of AAA Brigades. This article will deal with the construction and operations of an AAOC in permanent tactical position using equipment modified considerably from T/O&E issue. An AAOC of the type herein described is presently in operation by the 503d AAA Operations Detachment. Extensive tactical operations have shown that it gives greater efficiency in the primary mission of collecting, evaluating, and disseminating intelligence to all units in the defense.

T/O&E Equipment for an operations detachment is issued in a plotting kit, AN/TTQ-1 (Army-Navy Transportable Telephone Special Equipment). This kit includes relay cabinet, telephones, operations or plotting board, radios, switchboard, large tent, generators,

bridge platforms, clocks, and other necessary communications equipment. Such plotting equipment, with slight modifications, is suitable when an AAOC is performing under field conditions, especially since the equipment is completely portable and includes a 30' by 30' tent for housing the operations room. However, the AAOC for the defense of a large metropolitan city, when located in permanent buildings, should be modified so that the highest degree of efficiency, maximum utilization of personnel, and accuracy of intelligence data can be reached.

The effectiveness of AAA against aerial targets is not only dependent on such things as state of training, condition of material but also on the efficiency of the warning system. The AAA defense units need complete, up to the minute, accurate, early warning information in order that they may engage the enemy planes under range and other conditions favorable to the defense.

EARLY Warning is sent to the AAOC by the GCI stations of the air defense force and our own acquisition radars. When it is received by the AAOC

it must be collected at one point, evaluated, and disseminated to all units with the least possible delay. Some of the problems encountered from using the horizontal boards in the AAOC were: (1) Length of time it required the plotters to make up a raid stand, (2) The arrows used to mark the route of the target were very difficult to see by the tellers and AAOC sitting on the bridge. It became a habit to read the position of the raid stand. This introduced error since the arrows which indicate the direction of flight show the latest position; whereas, the raid stand is placed off to the side of this row of arrows, (3) The plotters standing around the horizontal plotting board will invariably cover up and block the view of the personnel on the bridge when they are reaching across the table. Many times the shirt or coat sleeve of the plotter will strike and move the arrows already on the board causing more time to elapse because these arrows must be replotted. All of these factors added together, meant poor information being sent to the gun units.

To reduce and eliminate as many problems as possible, a substitution of organic T/O&E was made by the 503d AAOC. In place of plotting tables, raid

Capt. Berger entered the service from the Pennsylvania National Guard and served in the ETO. He returned to EAD in October, 1950.

stands, and slate status boards, a system of vertical illuminated plexiglass boards is used. All personnel work behind the boards; all writing and plotting are accomplished by reverse writing using grease pencils to place information on the boards. By using this system: (1) No personnel block the view of the personnel working on the bridge, (2) The time required to place the information on the boards is cut considerably and (3) The tellers can start sending information as it is being placed on the boards instead of having to wait until the entire raid is made up, as is the case with the horizontal plotting board.

The horizontal board now issued with the AN/TTQ-1 set is eight feet by eight feet square. The size of this board creates a problem which can also be eliminated by the vertical board. For instance, when only one man is used to receive information from the surveillance radar, he will find it practically impossible to reach across the board to place the marker in the proper positions without the use of special extension equipment. Without this equipment, the man will have to walk around the board, necessitating the usage of a long cord which may become tangled with other cords, boards, or other personnel. On the other hand, he may have to remove his cord from the junction box, walk around the board and plug into a junction box on the other side, during which time he will lose communications. The other alternative is to have one man on each side of the board receiving information from the same source. Due to the small number of men in an operations detachment, this is an added burden. In contrast to the horizontal board and its problems, using the vertical plexiglass system, a plotter receiving information can easily move to any position behind the board and plot without any delay in time.

This system of illuminated vertical plexiglass is actually a hand hewed copy of methods currently in use by most air force GCI stations. Materials needed for the construction of an operations room utilizing vertical plexiglass are:

(1) Plexiglass

- (2) Fluorescent tubes and fixtures
- (3) Lumber
- (4) Building easily adapted to blacking out

To meet the desires of the antiaircraft commander, changes can be made as to the size of the boards and the information carried thereon. The scheme now in use by the 503d Antiaircraft Operations Detachment includes a situation or early warning board, operations board, raid information board, status of equipment board, and a miscellaneous board. The operations board, eight feet by eight feet square, is the largest board in the scheme. The boards are illuminated by encasing fluorescent lights on both sides of the boards. Plexiglass has a tendency to act as a lens so that when the fluorescent tubes are encased on the ends of the boards the light is reflected and is distributed evenly through the plexiglass.

THE Situation or Early Warning Board is marked off with the world geographic grid system, covering a radius of 200 miles. This board has three circles superimposed upon it. The smallest circle covers a radius of 50 miles from the center of the defended area. This circle corresponds with the large circle on the operations board. The middle circle has a radius of 100 miles and the outside circle is 200 miles in radius. At a glance, by interpolation, the distance the aircraft is from the defended area can be readily determined. The plotter behind the situation board plots all targets reported to him by the Aircraft Warning Service.

The Operations Board is large because of the large number of tracks that must be handled. In conjunction with the early warning plots from the GCI station it must also carry those of our own radars. The operations board is also marked with the world geographic grid system which shows all the positions of the firing units within the antiaircraft defense and covers a radius of 50 miles. All plots received by the plotters behind the board are placed upon the board with grease pencils. These plots or tracks

show the number of the raid, direction of flight and time plot was received. All other information pertaining to the raid is carried on the information board.

The Raid Information Board carries all additional information pertaining to all raids plotted on the situation and operations boards. This information will include raid numbers, identification of the aircraft (friendly, unidentified, or hostile), altitude in thousands of feet, and the identity of the station reporting the raid.

The Status of Equipment Board shows the operating status of all units in an antiaircraft defense and is kept current. It also shows the present state of equipment and communications within the antiaircraft defense. This allows the defense commander to tell at a glance the condition of readiness of his entire command.

The Miscellaneous Board shows the latest weather report, times of sunrise, sunset, moonrise, moonset, daily identification friend or foe code, schedule of duty, and standby radars and friendly flights expected in the area. Any other data pertinent to the operations of the operations center will be noted on this board.

The grid and all permanent markings are placed on the front of the boards by grease pencil. All plots and information that continues to change are written in reverse on the rear of the boards and can be removed easily by cotton waste. When the operations center is in a building, commercial power may be used to light the boards and when this power is not available or the unit is in the field, the generators issued with the AN/TTQ-1 set are sufficient to supply the needed power to light the boards. The construction and use of this type of operations center, now used by the 503d AAA Operations Detachment, has greatly increased the effectiveness of this unit. There are many ways that an operations center can be set up and operated, and they can be undergoing constant revision and improvement by the ingenuity and aggressiveness of the staff and officers of the detachment.



THE AIRBORNE DIVISION

By Lt. Col. Page E. Smith, Arty.

ANTI-AIRCRAFT officers are now indicating interest in the airborne division's organic anti-aircraft battalion. The questions most frequently asked are:

What is the mission of the anti-aircraft battalion?

How is it organized and equipped?

How is it employed?

How can I get in it?

To answer these questions well, it is necessary to give a brief background on the mission, organization and tactical employment of the airborne division.

MISSION

The mission of the airborne division is to seize and hold important objectives by airborne assault; to close with the enemy by fire and maneuver in order to destroy him; or to repel his assault by fire and close combat. The division is capable of engaging in airborne assault by means of paratroop and air landing. It can also conduct all types of ground operations, acting either alone or as a part of a larger force. Under the latest reorganization the airborne division is capable of sustained operations in combat for an extended period of time.

ORGANIZATION

The division is organized as shown in Fig. 1. Note that it is organized essentially the same as the standard infantry division. It has three airborne infantry regiments of three battalions each; a division artillery with three airborne light field artillery battalions, one airborne anti-aircraft battalion, and one medium field artillery battalion; two medium tank

battalions; an airborne engineer battalion; and the normal technical and administrative service support.

Some of the differences between the standard infantry division and the airborne division result from the inability of present-day aircraft to air drop or air land certain items of heavy equipment. For example, the airborne infantry regiment does not have an organic tank company such as is found in the standard infantry regiment.

There are some other major differences. At division level you will find that an anti-tank platoon, equipped with six 90mm anti-tank guns, has been added in order that some degree of anti-tank protection will be available in the initial stages of an airborne assault. A parachute maintenance company is included for the purpose of packing and maintaining personnel and equipment parachutes. Note that there are two tank battalions instead of the conventional one battalion found in the infantry

division. This change was necessary in order to give the airborne division the same tank support when conducting normal ground operations as the infantry division possesses.

At regimental level, the conventional heavy mortar company and tank company are replaced by a support company. This company has a heavy mortar platoon, and an anti-tank platoon similar to the one at division level. See Fig. 2.

In the division artillery, the major difference between the airborne and infantry divisions is that each field artillery battery has only four pieces instead of the conventional six. The anti-aircraft battalion has towed weapons rather than the self-propelled found in the infantry division, and has only three firing batteries instead of the conventional four batteries. See Figs. 3 and 4.

EMPLOYMENT

As stated previously, an airborne division may be employed in any of the con-

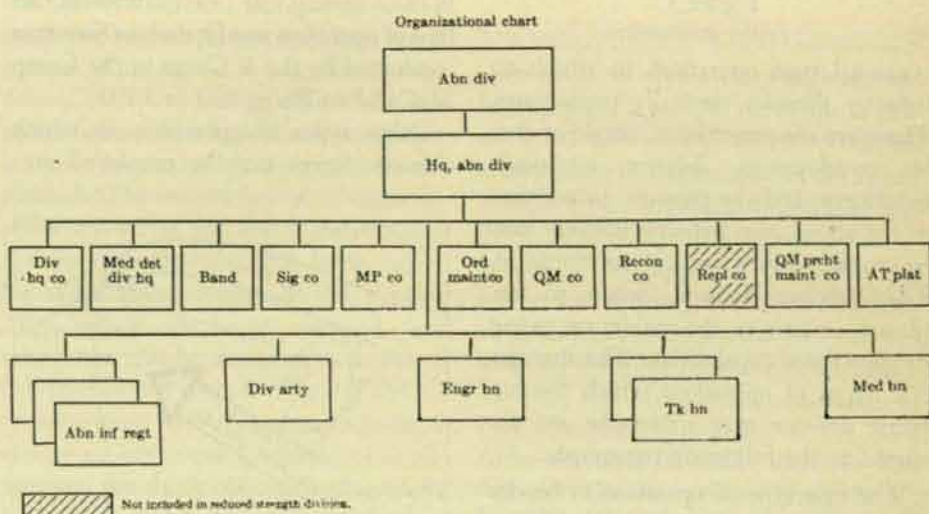


Figure 1.

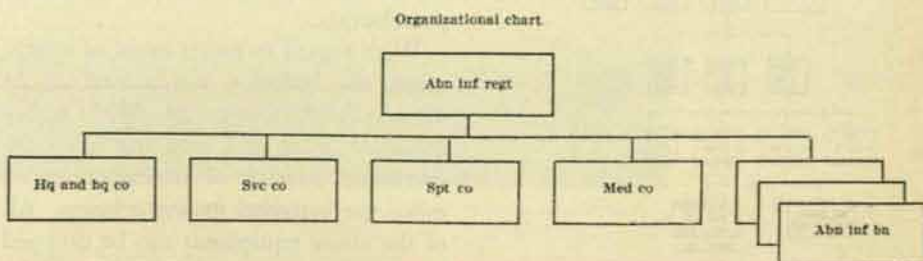


Figure 2.

Col. Smith is currently assigned to the Artillery Inspector's Office, AFF, Fort Monroe, Va. A qualified parachutist, he served in World War II in combat with the 17th Airborne AAA Battalion and with G3 in the China Theater. With intervening service as an instructor at the C&GS School, the AAA School and the Army Intelligence School, he recently commanded the 88th Airborne AAA Battalion.

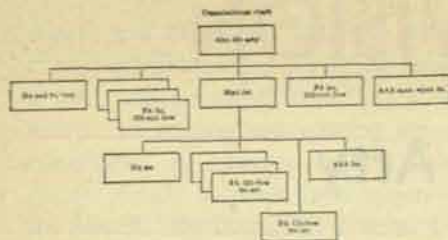


Figure 3.

ventional type operations in which an infantry division normally participates. These are the penetration, single or double envelopment, defense, retrograde movement, and the pursuit. In addition to the above, the airborne division may be employed in a vertical envelopment. The airborne division, when so employed, utilizes to the maximum extent its specialized capabilities. The five specific types of operations which the airborne division may undertake are discussed in the following paragraphs.

The first type of operation to be discussed is the one with which World War II veterans are most familiar. It is the close-in vertical envelopment of enemy forces in which an early link-up with other friendly ground forces is planned (see Fig. 5). An example of this type of operation was the employment of the 82d and 101st Airborne Divisions in the Normandy invasion of Europe in the Summer of 1944. This type of operation is accomplished by seizing, by means of airborne assault, important tactical localities, and holding these until the arrival overland of other major ground combat forces. Normally, the immediate battle area is isolated by capturing and holding critical terrain features and thus blocking the movement of enemy reserves.

The airborne division is also capable of making a deep vertical envelopment into enemy-held territory (see Fig. 6). The purpose of this type of operation is to seize an airhead deep in the enemy

country from which major ground or air operations may be conducted. This type of operation requires the use of extensive ground and air forces, and is supplied completely by air. After the airhead is seized and secured by airborne forces, other ground forces are air landed in the airhead and subsequently are employed in their normal role. An example of this type of operation was Operation Swarmer conducted by the V Corps in the Camp McCall-Fort Bragg area in 1950.

Other types of operations in which airborne forces may be employed are:

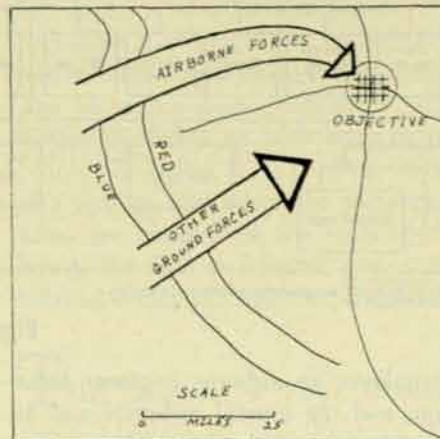


Figure 5.

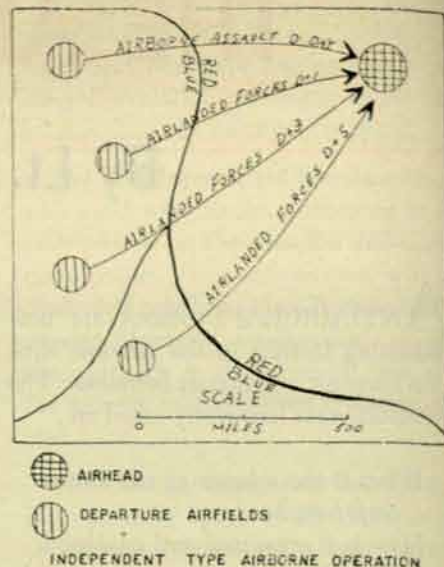


Figure 6.

the seizure, by airborne assault, of an air base from which further air or airborne operations may be conducted; the capturing, by airborne assault, of a vital area in order to deny its use to the enemy; the reinforcement, by airborne movement, of surrounded friendly forces; and the destruction of enemy installations by airborne assault, followed by a prompt withdrawal.

Airborne Antiaircraft Battalion

NOW let us look at the AAA battalion. The mission of the battalion is to provide local antiaircraft defense of assigned objectives against low-flying aircraft and to fire on mechanized or other terrestrial targets. The capabilities of the battalion include the air dropping by parachute of personnel and equipment, including 40mm guns, quadruple caliber .50 mounts, and jeeps.

Organization of the battalion is shown in Fig. 4. Points to be noted are that the battalion is considerably smaller than the normal towed or self-propelled version, and has only three firing batteries. All personnel except those with strictly administrative duties must be qualified parachutists.

With regard to major items of equipment, the battalion has a total of 24 40mm AAA Guns, 24 M55 trailer mounted quad 50's, and the necessary minimum amount of transportation to move the battalion in one echelon. All of the above equipment can be dropped by parachute as was proven in tests by

AFF Board No. 1 and on Operation Swarmer. The present equipment is therefore excellent from the point of view of getting the equipment into the airhead. However, once on the ground towed weapons have serious limitations with regard to mobility. This is especially true when the battalion is operating in a close support role with the Infantry. Recommended developments that will overcome these limitations will be discussed later.

The employment of the Airborne AAA Battalion is essentially the same as for the organic AAA battalion of the infantry division except for the airborne assault phase of an operation. In such an operation the battalion is normally broken down into a parachute echelon and an air-landed echelon. The parachute echelon will usually consist of the major weapons, personnel to man the weapons, minimum transportation, and the necessary command, communications, and staff personnel and equipment. The air-landed echelon will con-

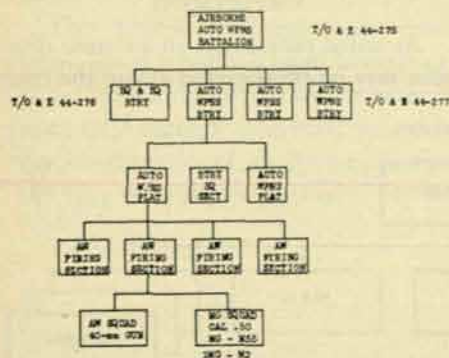


Figure 4.

tain the remainder of the battalion. Depending upon the situation, the battalion may be employed initially to furnish antiaircraft and ground defense for the drop zone, landing zone, or an airstrip in the airhead as the case may be. As soon as corps AAA AW units can be air landed the organic airborne AAA battalion will be released from this mission and will be available to the division commander for protection of the division artillery, for close support of infantry, or such other missions as may be deemed appropriate.

RECOMMENDED FUTURE DEVELOPMENTS

As pointed out earlier in this article it is believed that the present equipment of the airborne AAA battalion is not adequate for the various missions that may be assigned. The major objections to the present equipment are that it lacks mobility once it is on the ground, and the fire control and tracking equipment is not adequate for the present and future high speed enemy aircraft that may be encountered.

There are two schools of thought on the first point in question. One is that the airborne battalion should have the same equipment as the self-propelled unit in order that the airborne division will have the same effective AAA support as an infantry division. The other

school of thought maintains that a weapon can be developed which can satisfy the requirements of being light and substantial enough to be air dropped and at the same time have the required degree of mobility. The major argument against the first line of thought is that the airhead will have no protection for the first few days of an operation, and until air-landed operations can commence. This period is considered to be critical because once our plan is obvious to the enemy, it is logical to assume that he will concentrate his air attacks on our airhead. The second line of thought appears reasonable and can be effected by the development of a removable turret for AAA guns, similar to the present M55, which can be air dropped, and which can also be designed to fit into a full tracked self-propelled mount similar to the present M19. The most advanced system of fire control capable of withstanding the shock of parachuting could be incorporated into the turret. Such a removable turret would give the airborne battalion the capability of being used early in an airborne operation. When large cargo aircraft commence operations in the airhead the tracked vehicle carrier could be brought in. The turret could then be placed in the carrier and thus give the battalion the desired mobility for sustained ground operations.

It is realized that such developments are several years in the future and that certain interim measures are desirable. Among these might be the adoption of the M19 sight and an on-carriage gasoline power unit for the 40mm gun. This would give more effective fire control and a faster rate of tracking.

AIRBORNE DUTY

In order to obtain duty with an airborne unit it is merely necessary to submit a letter through channels to the Adjutant General, Department of the Army, volunteering for parachute training and duty. A physical examination is also required. Upon approval the individual will be sent to Jump School, at Fort Benning, Georgia, and subsequently assigned to either the 88th Airborne AAA Battalion with the 11th Airborne Division at Fort Campbell, Kentucky or the 80th Airborne AAA Battalion with the 82d Airborne Division at Fort Bragg, N. C. If overseas duty is desired, one battery which was formerly with the 88th Battalion is now in Korea with the 187th Airborne Regimental Combat Team. While on parachute status with one of the above units, and provided a jump is made at least once every three months, the individual receives hazardous duty pay which is \$50.00 a month for enlisted men and \$100.00 a month for officers.



Artillery drop.

AIRBORNE warfare, the theory of vertical envelopment, the new and rapid means of transporting large bodies of troops, is as radical a development as the Chinese invention of gunpowder, even though it has been developed smoothly and without radical losses. The calculated dreams of Generals John Lee, Matthew Ridgway and "Slim Jim" Gavin have developed into the rapid movement over thousand of miles, of death-dealing troops who drop, without warning, onto the necks of our enemies.

Larger and more efficient loads are being parachuted into the drop zones and efficient methods of resupply are being developed and tested in the Korean campaign. Where the jumping of a jeep was once considered a novelty, the huge 6 x 6 is now dropped with little misgiving. Only a few years ago the pack 75mm howitzer was the artillery piece for parachutists; today, the 105 is commonly dropped and the 155 is air transported with nonjumping troops.

Airborne antiaircraft, however, has made little progress. We have a poorly defined mission, a poor system of employment and are inadequately equipped for maximum employment, particularly in reference to our role in ground support.

Recommendation One: Remove AAA, in its present form, from the assault.

Present tactical doctrine calls for an assault on H-hour, with airborne troops pouring from the sky to help seize and defend the drop zones from enemy low

flying aircraft. To do what might appear to be a mansized job, the jumping antiaircraftmen are equipped with boys' tools. The assault is made with the dubious aid of the M63, a single barreled caliber .50 machine gun, on an AA mount.

In my opinion, there is little need for airborne AA in the assault. As Major General Gavin points out in his excellent work, "Airborne Warfare," such an operation requires total air superiority. With air superiority, there is no need for antiaircraft. Even if enemy aircraft slip past our fighters, and it is conceivable, our own AAA could not be allowed to open fire, for fear of destroying our own planes.

There is also a lack of transportation to move it. Just to air transport an AAA battalion (and I have TM 71-210 before me) takes dozens of huge carrier aircraft, and the airborne commander will need those planes to drop his infantry, field artillery and other true assault forces. Resupply for all of these troops is a terrific problem, and there is simply little or no room for airborne AAA at this time. My theory is partially borne out by Korean developments, too, as the 187th Regimental Combat Team didn't make use of their AA people until D plus 2, when they were allowed to jump in, equipped with pack 75mm howitzers!

Recommendation Two: Equip airborne AA with more mobile weapons!

After the assault, the airborne AAA

battalion is supposed to drop in or air transport in its heavier equipment. At this time, equipped with towed 40mm guns and the M55, quadruple mounted caliber .50 machine guns, it goes into a role comparable to its counterpart in the regular infantry division. However, the airborne division is a hard striking, rapid moving outfit; the weapons with its AAA battalion are hardly suitable for anything so mobile. Even though the AA guns are brought into the battle area early there is no provision for moving them. Airborne troops expect to receive no motor vehicles, other than possibly a jeep or so, and they are taught to manhandle their guns.

My recommendation would be to equip the airborne AAA battalion with the equipment now current in the self-propelled unit and to allow it to join the division when priorities are not so critical. Since our chances at enemy aircraft will probably be less than our chances at enemy ground personnel, we should be given something that we can chase the enemy with; something as mobile as the rest of our division.

Recommendation Three: Give us a dual purpose.

Airborne antiaircraft could be made more useful to the division commander if it had a dual purpose. I agree that there is a definite need for antiaircraft after the assault, the same as with the infantry division. But I think, too, that the days of assault could give these paratroopers a chance to show their worth. I advocate equipping the airborne AA battalion with recoilless weapons, giant bazookas and such other light antitank equipment as we develop. Allow AAA detachments to jump in the assault and act as a tank killer team. At no other time is the airborne division so vulnerable to the tank as during the assault, and at no other time is the AAA more useless to them. They could be utilized to help achieve the division objective.

Then when their self-propelled equipment does reach them it should be such equipment as can be truly useful in the dual role now played by AAA—that of antiaircraft and ground support, so common in Korea.



Loading the 40mm gun on carriage.

Fairchild Aircraft Photo—by Dan Frankfurter

How's Your Air Mobility?

By Lt. Col. George W. Shivers, Jr., Arty.

THE Chief of Army Field Forces has directed that all army units will receive sufficient training to enable them to move by air all equipment and personnel that can be transported by cargo aircraft. Exactly where will the units obtain the instructor personnel trained in troop movement by air?

Student officers at the Antiaircraft and Guided Missiles School who are attending the regular or associate courses on the battery or advance levels receive 19 hours instruction in air transportability. This provides the basic knowledge and techniques needed to conduct unit schools in air transportability. Included in the course are detailed and practical considerations of the material covered in this article. There is much more to loading an aircraft than simply filling it with-in weight limitations. An excellent preview of air transportability can be obtained in thirty minutes from T.F. 7-1510, *Troop Movement by Air*.

The Air Force supplies the cargo aircraft but the army unit to be transported is responsible for loading and securing the cargo in the aircraft. Allowable cargo loads are placed and lashed properly to insure that the aircraft will have a safe balance during take-off, flight and land-

ing. The load is secured so that it will not break loose under any conditions of flight. Fortunately, these requirements may be computed accurately and quickly, and exact load placement determined prior to flight. In order to accomplish this it is necessary that army units be familiar with cargo aircraft.

Knowledge of the capabilities and limitations of available cargo aircraft will enable the higher commander, his staff and lower unit commanders to plan efficiently and execute an air transported operation. What specific elements of aircraft data must be known?

PRINCIPAL factors concerning cargo aircraft that influence the proposed air transportability of units are: size and location of the cargo doors, as well as the height of the doors from the ground; size of the cargo compartment and strength of the floor; location and strength of the cargo tie-down fittings; allowable cargo load (pay load); and limitations of the position of the center of gravity.

Workhorse of World War II, the C-47, transported millions of tons of military supplies in spite of certain definite limitations in the location and size of the cargo doors, the allowable cargo load, and size of the cargo compartment. These demonstrated limitations in the C-47 were later to provide guides for the development of cargo aircraft designed for specific military purposes.

This is the picture today. The Air Force has developed a series of cargo aircraft more suitable for army loads and the army has adjusted to the new requirement by modifying or redesigning equipment to reduce weight and bulk.

One new aircraft has already proved itself as a combat cargo plane. It is the C-119, also known as the Flying Boxcar, or the Packet. It is the standard medium cargo aircraft used to transport light artillery pieces. Having an allowable cargo load of 16,000 pounds, it loads

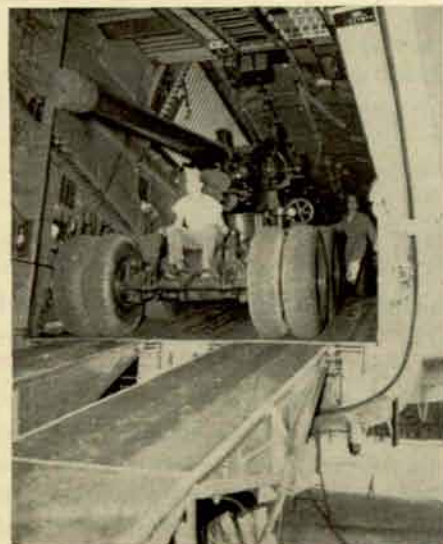
from the rear through clamshell doors that allow straight-on loading. In addition to its employment in standard air transported operations, it can also be used to drop personnel, artillery pieces and vehicles by parachute. It has proved to be an excellent plane for evacuation of the wounded. Larger aircraft are available for moving medium artillery units.

The standard heavy cargo plane is the C-124, with an allowable cargo load of 50,000 pounds and the capability of carrying virtually anything in the infantry division except the heavier tanks and tank-recovery vehicles. It can carry all artillery pieces except the 120mm anti-aircraft gun. Bulky and heavy equipment is loaded by means of large doors and ramps at the nose of the aircraft. An elevator located aft of the wing is used for loading lighter equipment. This aircraft requires prepared landing strips, but newer types of planes are being developed for operations from unimproved fields.

The C-123 is a new type of aircraft, known as the assault transport. It is a hybrid power glider that can land and take off in short distances from unimproved fields. Towed as a glider to the vicinity of the landing area by a tug aircraft, it can cut loose from the tug and proceed to the landing area, land and discharge its cargo, after which it takes off and returns under its own power for more loads. Another type of aircraft under test is the detachable pod or pack aircraft.

This aircraft, embodying the prime mover and pod or the tractor-trailer principle, has flown. The advantages based on this principle are found in the reduction in the time the aircraft must wait on the ground for loading and unloading. Its allowable cargo load has not yet been established. The allowable cargo load for any aircraft, of course, is dependent upon the range it must fly.

The pay load figures included in the description of the new cargo planes are



155mm gun in C-124 aircraft.

guides representing the normal maximum allowable loads. As a result, cargo loads are actually established for each operation. Familiarity with cargo planes alone is not enough.

OFFICERS of your unit should receive training in planning procedures for departure and arrival airfields to include necessary instructions in the establishment and maintenance of security regulations at the departure airfields. The action of a unit at an arrival airfield is extremely important to the success of an operation. Planes and troops on an airfield in or near hostile territory present a very lucrative target for the enemy. Prompt consolidation and reorganization of a unit upon completion of a move by air are necessary. Your officers and non-commissioned officers should know where to place the cargo in the aircraft.

An aircraft in flight must be balanced correctly. Incorrect balance will result from improper placement of cargo. Consequently, the proper placement of cargo prior to flight becomes of utmost concern to every individual flying in the aircraft. The solution to the problem of load placement is not difficult.

The principles of weight and balance can be found in T.M. 71-210 and in Special Text 71-210 published by the Infantry School, Fort Benning, Georgia. The center of gravity of wheeled vehicles and weapons is determined by the army unit.

Information concerning unloaded vehicles can be found in T. M. 9-2800, but it is advisable for each unit to determine the center of gravity of each weapon and vehicle, since no two units will combat-

load their vehicles alike. Placing the load in the correct place in the aircraft is not enough.

The load is secured so that it will remain in position. Therefore, instruction in the computations of lashing is necessary. The number of lashings required to keep any vehicle, weapon or piece of cargo in place can be computed. These computations reflect the weight of the cargo to be lashed, the angles at which the lashings are tied, and the strength of the tie-down fittings of the particular aircraft and the strength of the lashing materials used. Many types of lashing materials may be used.

Rope was the old stand-by and can still be used for light loads. However, chain devices have been developed which are better for securing heavy equipment such as the 90mm AA gun and the M19. Other devices available include strap webbing, steel cable and the Evans Sky-loader Kit.

Rope is the easiest of all securing devices to obtain. All personnel in your unit should receive instruction in the care of rope and the tying of the knots used in air transportability. Just any knot won't do.

The knots used to secure cargo in aircraft are: the double half-hitch, which is used to secure the lashings to the tie-down fitting in the aircraft; the baker bowline, used to provide a method of tightening the lashing; and the slippery half-hitch, used to secure the lashing. These knots are not difficult to learn and a large number of men can be trained to tie them in a very short time.

In addition you will want your troops to be familiar with the operations of the other securing devices, now standard

equipment for modern cargo aircraft. They should be provided with the opportunities to practice securing typical loads utilizing all devices.

Usually it is impossible to obtain cargo aircraft for practice loading. Mock-ups of the cargo aircraft can be used for training in loading and lashing and will accomplish essentially the same results.

Mock-ups of the C-119 and C-124 aircraft should be available at every training center to allow troops to practice loading and securing equipment in the medium and heavy cargo aircraft.

AFTER your unit has completed this phase of training and has become proficient in loading and lashing equipment on the mock-ups, cargo aircraft should be obtained for an indoctrination flight. This flight should be made with typical loads for your unit, the troops loading and securing the equipment, and then flying with the load they have secured. Before you take your unit to an airfield for the indoctrination flight, you will want to see that they are instructed in flight safety.

Flight safety instruction should cover conduct of the personnel at the airfield as well as in flight. Because the parachute is standard equipment for everyone participating in a flight, the procedure for proper adjustment of the parachute is taught to each man. An incorrectly adjusted 'chute can result in serious injury if one has to jump.

When your unit has successfully completed its indoctrination flights, then, and not until then, can you say that your unit is fully trained and ready to take its rightful place in the army of today.



West Pointers Visit Bliss

The dual use of antiaircraft artillery, as a weapon against aerial attack and as a weapon against ground targets, was featured in demonstrations given at Fort Bliss during the two-day intensive training and orientation program for visiting cadets of the United States Military Academy Class of 1952, in June.

The cadets witnessed demonstrations

of light antiaircraft artillery aerial firing on Hueco Range No. 2, a demonstration of medium and heavy AAA aerial firing on Hueco Range No. 4, and a demonstration of AAA surface firing in close support of infantry at Dona Ana Range.

The visitors also made a trip to the 1st Guided Missile Group area, to the guided missile department of the Anti-

aircraft and Guided Missiles Branch of The Artillery School, and to the radar park of AFF Board No. 4 where they viewed new AAA equipment.

The West Pointers, traveling by plane, arrived in two increments, one on June 16 and the other on June 17. After their two-day instruction period, they departed on June 20.

Sweat Blood And Smile

By Col. Strode Newman

TAKE your hands off of your hips, Colonel," the sergeant said.

The sergeant was a slender man of medium height. He stood, erect and soldierly, and looked me straight in my surprised eyes. In twenty-five years as a commissioned officer in the United States Army this was a new experience.

We looked at each other a moment in silence, while I struggled inwardly for self-control. The sergeant waited for me to obey his orders, as the quiet assurance and tense lines of determination in his face made clear. I dropped my hands to my sides without a word. The sergeant walked away, also without a word.

This makes more sense than you might think. It rests on the solid foundation that when a man jumps out of an airplane in flight . . . well, the law of gravity does not salute. This is one of the first things you discover as a student paratrooper at the Airborne School, Fort Benning, Georgia.

You also develop a certain *state of mind* which is not the unrelieved grim determination you might imagine it to be. There is a constant awareness of danger, but it is viewed with a special kind of humor that keeps things in perspective. Then there is the *esprit de corps* of the paratroopers . . . but come with me to Jump School, and you will see what I mean.

Our first hour was a vigorous exercise period. It was in the ten minute break following this hour that the sergeant instructor so tactfully informed me, in eight words, that when you are engaged in this business it is no time to be standing around with the mental attitude that accompanies having your hands on your hips. That back-on-your-heels posture is *verboten* at Jump School.

In the second hour we reported to wooden replicas of airplanes for what is called Mock Door training, practice in the details of how to get out of an airplane in flight, doing everything the way the sergeant said.

"Go!"

The sergeant slapped the man in the door sharply across the rump and the jumper leaped out in space. After the leading man jumps, all others automatically shuffle forward and literally pour out of the door.

"Hold it! Stop where you are!" the sergeant roared.

He walked up to one scared looking youngster, took his hand from the static line, turned it around and made him grasp it the proper way.

"Listen," the sergeant said, "in this business you do what you are told, exactly the way you are told."

There was a pulsing silence.

"You had that line under and over your wrist, when you have been told to have it over and under.

"Now," the sergeant continued, "I don't give a damn what happens to a guy what can't do what he is told. What would happen to you is that line would tangle around your arm when you jump-



Fairchild Aircraft Photo—by Dan Frankfurter

Drop zone.

ed out the door, and maybe pull the damn arm off. That's OK with me, except I got to kick your arm out the way," this was illustrated graphically with a violent kick, "before the next man can jump. While I kick your arm out the way, the rest of the stick is crowding forward, so you risk the lives of good soldiers because you can't do what you are told."

The sergeant spat disgustedly out of the door, gave another lusty kick at the imaginary arm in the door and we continued with our practice, each mentally resolved not to ever get our hand the wrong way around that static line. To lose an arm would be bad, but to suffer the sergeant's public scorn would be worse.

THE first time we *really* sweated was in the Mock Tower area.

While a Mock Door is only two feet above the ground, a Mock Tower practice plane stands on top of tall 34 foot telephone poles. That may not sound high but, believe me, it is easy to confuse a Mock Tower with the Empire State Building, if you are up there looking down with the idea of jumping off.

There is a door so you can jump out, and straps from a harness are attached to you, in a way that allows you to fall some ten feet toward the earth, and then you are brought up with a jerk, to dangle in the air on a cable that delivers you to a sawdust landing pile.

This is the place that the men are separated from the boys, the place where you and everybody else finds out if you have the one ingredient without which you can never be a paratrooper: The nerve and will to jump.

As in the Mock Door, when you exit from the tower you follow a definite

technique: Drop earthward feet first; tuck your head forward; place both hands over the reserve 'chute on your chest; count "one-thousand, two-thousand, three-thousand."

My first time out of the door is something I don't remember very clearly, except that I'm glad I'll never have to do that for the first time again. It was not until my third jump from the tower that the sergeant said:

"That was satisfactory, Colonel."

In every practice jump, Mock Tower or Mock Door, each man counts aloud and loudly: "One-thousand, two-thousand, three-thousand."

Why?

Because a parachute jump is normally at a height of only 1,000 feet or lower. Figure it out yourself, after you have fallen for three seconds, and your main 'chute has not opened, there isn't much time left in which to pull your reserve. The count is to measure the three seconds, and your life may depend on doing this.

Or to express it the way one of our dear sergeants phrased it:

"So you don't like to be in no hurry . . . well, you better like it. In this business seconds mean life or death—either you pick up your 'chute and walk away, or they pick you up in a shovel. You guys better get that straight."

If the wind is blowing, your inflated 'chute will drag you over the countryside unless you know how to collapse it. So we learned how.

As usual, any new activity was opened with one of our hot sergeants giving us the hot oil about how to do it.

"This here is a parachute," one instructor explained solemnly, holding up the folds of the mottled greenish sky umbrella.

"These 'chutes are made of nylon," he

shook out the folds of the soft fabric in front of us, "and nylon is smooth and nice to touch, in case you didn't know." He looked around at us, dead pan.

We all looked back at him, also dead pan, because nobody wanted to be told, "This ain't funny, all you men wearing smiles, down on the ground and knock out ten."

That *knock out ten* was with us all day, every day, everywhere we went. It meant that the culprit who had in some way incurred the sergeant's displeasure, must execute ten push-ups. That is, drop full length on the ground, supporting his body on his toes and hands, and chin himself on the ground ten times.

This is not punishment, according to the Airborne School. It is a quickening exercise that keeps you alert (to avoid it), or (if you don't avoid it) the ten push-ups develop the muscle that covers your shoulder blade, which is one of the "points of contact" when you make a landing fall.

From the Mock Tower area we advanced to the High Tower area. Here we were hauled up on a cable and dropped from 250 foot high steel towers in real 'chutes. And it was here we learned about the only situation in which a paratrooper is allowed to swear.

If one 'chute ever gets close to and directly over another, the lower 'chute may steal the air and the top 'chute collapse, which may drop the upper man on top of the lower 'chute, collapsing it also. This is not nearly so dangerous as it may sound if you know what to do.

It is because of this inherent danger of a collapsed 'chute that a paratrooper is authorized to swear when another jumper lands on top of his 'chute. At such times it is permissible for the lower man to rear back, and shout to the man above:

"Get the hell off my canopy!"

One day I stopped in at my training company orderly room, and there had a brief chat with an old-timer, the first sergeant. There was a sign on his desk, facing the door. It read:

"Your story has touched my heart.

Never have I met anyone with

More troubles than you have.

Please accept my sincere sympathy."

"Well, Sergeant," I said, "I guess you hear a good many reasons why they haven't got what it takes."

The sergeant gave me a quick look and said feelingly, "I sure do, Colonel.



Fairchild Aircraft Photo—by Dan Frankfurter
Airborne takeoff.

Would you like to see the Quit File?"

When a would-be paratrooper fails he is required to fill in a Quit Slip, and state in writing that he wants to quit. He must also answer two fundamental questions. These questions, with some of the answers given in the Quit File, are:

Question: Why did you volunteer for Airborne?

Answers: "I wanted to become a trooper."
"I figured I could take it."
"A bunch of fellows said it was a good idea."
"I could use the extra money."
"I was talked into it by friends."
"I wanted to join a good outfit."

Question: Why are you quitting?

Answers: "I gave it what I could, but I can't take it."
"Parents are against my jumping."

"It is too much for me to take."

"I froze in the 34-foot tower, and have not got the nerve to jump."

"Afraid of the 250-foot tower."

"I don't like this place here."

"I am too nervous for the training."

"I am fiscally unable to continue."

"I haven't got what it takes."

"When I had a car wreck I had a brain kencushion, and I don't want to hurt my health."

When I finished the file and handed it back to the sergeant it was time for dinner. He went to a microphone connected to loud speakers and announced in a vibrant voice that penetrated to every corner of the barracks:

"All right, Glamor Boys . . . outside, and line up for chow!"

OF course the time eventually comes when they take you up in an airplane and expect you to jump out of it. When

that time comes the palms of your hands become slightly moist, you get a sort of hollow faint feeling, and you silently ask yourself: "Now just why did I ever get myself into this fix?"

But you jump!

I'll spare you the details of how I sweated it out; just let it suffice that I did jump. It's quite a sensation.

But when you hit the ground, find yourself all in one piece, and rise to your feet . . . it was more than worth the effort. The air tastes good in your lungs, the earth feels good under your feet; you are proud to be a paratrooper.

As I was experiencing this feeling for the first time, there were sudden foot-steps behind me, and I turned to find an erect and soldierly figure walking toward me. He was smiling, and held out his hand with obvious pleasure.

"Congratulations, Colonel," was all the sergeant said, but he conveyed a welcome; I now belonged. I could sweat blood and smile!



Highlights Of The 88th Airborne AAA

By Capt. H. W. C. Furman, Arty.

STAND UP AND HOOK UP," traditional prejump command of the airborne, has echoed over the skies for the past few months as members of the 88th Airborne AAA Battalion have progressed with their training as an organic part of the 11th Airborne Division.

Last year we participated with the 11th Airborne Division in Operation Swarmer; fired our service target practices at Camp Perry; and participated in the training of the 100th Airborne Division, Reserve.

By late summer we were busy in the formation of the 187th RCT for service in Korea. It included Battery A of this battalion. Since then we have activated our present Battery A and we have also furnished the required replacements in

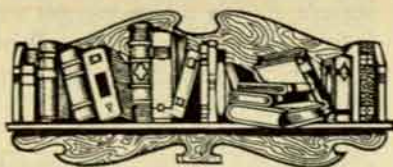
Korea. Altogether this has necessitated another complete cycle of training with basic paratrooper training at Fort Benning and unit training at Fort Campbell and elsewhere.

There's a lot more to it than just jumping. To start with we train for ground operations like other AW battalions. Then we train for airborne as well as air-landing operations. We jump individually and we jump with our equipment, from the 40mm gun and jeeps down to the bundles of essential supplies and equipment. Stress is placed on loading, rigging, stowing, and dropping equipment under a variety of conditions. Another item worthy of mention, is that all hands have to work in close coordination with the Air Force troop

carrier and air transport units. Exercises are conducted to develop proficiency in the techniques of departure and arrival airfield control. There are never as many airplanes as we desire; so, we get a good dose of the essential training in trimming down on the load and also in working the drops in relays.

In May the battalion moved to Fort Miles, Delaware, for thirty days on the range in target practice. At first the crews were new, but by the close of this phase the record of targets shot down showed the results of intensive training.

We are now back at Fort Campbell continuing to meet our requirements for replacements in Korea and preparing for more maneuver exercises and the summer camp training.



BOOK REVIEWS

A SOLDIER'S STORY. By General of the Army Omar N. Bradley. Henry Hall and Company. 640 pp.; \$5.00.

Widely acclaimed as the best of the field commanders' stories to come out of World War II, General Bradley's book achieves a delicate balance in outlining the many-sided forces and factors that entered into the winning of the War.

Many reviewers have laid stress upon the author's carefully weighed analysis of the personalities involved in the allied high command and the honest differences among them. The book, taken as a whole, places these observations in their proper relationship to the over-all story that General Bradley so capably tells.

Those who participated in campaigns against Nazi Germany will regard this as their story too. For many, General Bradley's book is the first account of the complex considerations and the action taken at top levels of command which resulted in the ensuing operations in which they played a part.

Nothing could be more lucid and simple than the author's presentation of his story. He deals frankly with controversial questions that other military writers might be pardoned for by-passing. Yet no one can possibly take offense at any of the views or reactions expressed. Where the author has been forthrightly critical, he has never been disparaging and he is quick to accord recognition to the best qualities and performance of duty among those of the American and Allied forces who carried the heavy burden of command through to the final victory.

The reconciliation of differences between allies and between the separate branches of our own forces was a problem that constantly rose to plague the top planners. General Bradley describes an amusing conference among Air Chief Marshall Tedder and General Tooeey Spaatz with the author and General Patton in Gafsa, North Africa. U. S. ground forces under Patton's command, had re-

Silver Star

FIRST LIEUTENANT STEPHEN A. MATEJOV, while a member of Battery A, 15th AAA AW Bn. (SP), distinguished himself by gallantry in action against an armed enemy near Sogu-ri, Korea, on 17 November 1950. On this date, the platoon which Lieutenant Matejov commanded was providing close support for the 1st Battalion, 17th Infantry. He led a section of his platoon at the head of a column which was advancing north against the enemy. At about 0950 hours, the point was fired upon from positions on both sides of the road. This intense fire came from automatic weapons and small arms. With complete disregard for his own personal safety, Lieutenant Matejov immediately left the relative security of his M-19 and proceeded under heavy fire to a forward position from which he was better able to spot the sources of the enemy fire. He remained in his exposed position for a period of one and a half hours spotting enemy targets and placing his 40mm and .50 caliber fire thereon. His coolness and heroism under fire enabled his platoon to mass its fires on numerous enemy targets, and the destruction thereof allowed the column to continue its northward attack with dispatch. His display of gallantry reflects great credit on himself and the military service. x x x State of New York.

ceived heavy raids by the Luftwaffe and the meeting had been called to "explore the need for improvement in Allied fighter cover and air support."

"Tedder had scarcely repeated the air force claim of Allied air supremacy in the Mediterranean theatre when four Focke-Wulf-190's sped in over the city. Strafing the streets of Gafsa, they stampeded a camel caravan past our door. At the end of their run they dropped their bombs. Plaster flaked from the ceiling and when we went to open the door, I found that the concussion had wedged it tightly shut.

"Tedder packed his pipe, looked up mischievously from the table, and smiled. Tooeey looked out of the window. He turned to Patton and shook his head. 'Now how in hell did you ever manage to stage that?'

"'I'll be damned if I know,' George shouted back, 'but if I could find the SOB's who flew those planes, I'd mail them each a medal!'

In preparing for the Sicilian invasion,

much difficulty was encountered by staff planners in arranging for the distribution of available space for the shipping of material to the landing beach.

"Artillery asked to bring guns ashore even at the expense of engineer troops. Engineers demanded bridging ashore even at the expense of antiaircraft guns. And antiaircraft asked for more guns even at the expense of quartermaster trucks . . . each demanding a larger share of the lift, each contending that if its particular allotment were cut, the whole invasion might fail."

The conflict between personalities of the arms and services involved and the honest differences of opinion that required careful consideration of the planning staff are presented in an interesting and sympathetic manner.

General Bradley's book makes the most of the human interest factors. His simplicity, humility and abundant good humor are revealed throughout. It is certainly among the most important historical works yet to be produced in the military field.—R. W. O.

ROCKETS, MISSILES, AND SPACE TRAVEL. By Willy Ley. The Viking Press, Inc. 436 pp.; \$5.95.

Willy Ley might easily be called the modern Jules Verne; however, he, unlike Verne, verifies and justifies his predictions with scientific and engineering facts now known. All artillerymen who are interested in extending the capabilities of existing cannons will be fascinated by this book.

In preparing *Rockets, Missiles, and Space Travel*, the author devotes considerable space to historical development. Much of this history lies within the boundaries of Germany, Ley's native land until the advent of Hitler. In addition, the efforts of Goddard, though, have not been overlooked by the author.

Later developments in the United States are described, within security limitations. Some of the more recent and better known missile projects, such as

Aerobee, Viking and Bumber, are included, indicating the timeliness of the book.

In the later chapters, attention is directed to what may be called Willy Ley's "first love," travel in outer space. Space ships are definitely considered to be a possibility. The military and scientific value of such man-made satellites are emphasized. Atomic power plants, when available, will provide an important impetus for such travel.

When Willy Ley progresses to the possibilities of establishing a base upon the moon, he becomes enthusiastic. He describes the procedure of building such a base with considerable detail.

The book provides excellent background material on the guided missile field. Much material on fuels and propulsion is given. The more vexing problems of stabilization and control are not emphasized. Two informative appendices and a bibliography complete the book.

The book is particularly interesting at this time in view of the guided missile programs now in progress in this country, which are cloaked in secrecy.

LT. COL. IVER A. PETERSON, GSC.

THE SOVIET MILITARY ORGANIZATION. A compilation of articles on the Russian military structure from the ARMY INFORMATION DIGEST. 64 pp. Fifty cents.

From Tsar to Commissar, the first article deals with historical background of the Red Army. The other six are pointed in detail to arrive at the final study, Structure of the High Command.

The portions of the pamphlet dealing with the training and mobility of the Soviet soldier give a keen insight into his attitudes and professional stature.

Guerrilla operations are covered under the heading of Soviet Partisan Warfare. The "shadow army," whose tactics are being met in Korea today by the United Nations Forces, was a factor in Napoleon's ill-fated drive into Russia. This was also an important contribution to the debacle met by the Germans on the Eastern Front in World War II.

Every member of the Armed Forces can well study the implications of Asiatic warfare as outlined in the pamphlet.

JULY-AUGUST, 1951

Official WWII History Offered Free To Vets

Servicemen wounded in action during World War II may obtain a free copy of the official Army record of "where it happened."

Army Historical Division said that the series, "American Forces in Action," is now available to all servicemen.

While the entire paper-bound series is for sale, any man wounded in a geographical locale covered by any single volume may obtain that volume, free, by writing to the Office of the Chief of Military History, Washington 25, D. C.

Following are the titles available: "Papuan Campaign," "To Bizerte with the II Corps," "Salerno," "Volturno," "The Winter Line," "Merrill's Marauders," "Omaha Beachhead," "The Admiralties," "Makin," "Guam," "Small Unit Actions," "St. Lo," "Anzio Beachhead," "Utah Beach to Cherbourg."

—Armed Forces Press Service.

JOURNAL subscribers wishing to purchase copies, may order from the ANTI-AIRCRAFT JOURNAL.

New Books

"Russia Then and Now," a book hailed in Europe and England as an incisive study of Russian culture and Russia's cultural relations with western Europe, will appear in an American edition this fall published by John Day. The author is Wladimir Weidle, an eminent anti-Soviet humanist now living in France, where his book was published recently under the title "La Russie Absent et Presente." Recipient of the Prix Rivarol, and a selection of the World Affairs Book Club in England, it is the first volume of a trilogy of which the second will concern "The Structure of Europe" and the third "English Values."

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News and Comment

Gen. Lawton



Chief of Staff, AFF, Promoted

Major General William S. Lawton graduated from USMA in 1922 and was commissioned in the Air Service. After graduating at the Advanced Flying School he transferred to the CAC.

In 1939 he went to Hawaii. Beginning there as a captain in the Harbor-Defenses, by 1944 he had climbed to the grade of brigadier general as Deputy Chief of Staff of the Pacific Ocean Areas. Those who served in the Pacific remember him as the coordinator and expeditor around the "Pineapple Pentagon," particularly as to its far-flung activities in pushing the war to Japan.

General Lawton returned to the States in 1947 to serve with Headquarters Fifth Army. He served later as Commandant of the Coast Artillery School at Fort Winfield Scott until transferred in 1950 to his present assignment as Chief of Staff, Army Field Forces, Fort Monroe, Virginia.

War decorations: DSM, LM (OLC), BSM, CR.

Brig. Gen. Kelly Retires

Brig. Gen. Paul B. Kelly retired for physical disability at Letterman General Hospital on 31 May 1951, and now

makes his home at the Hotel Chamberlin, Old Point Comfort, Fort Monroe, Virginia.

General Kelly graduated from USMA in 1918 and was commissioned in the CAC.

In 1943 General Kelly took the 1st AAA Group to Casablanca where he commanded the Antiaircraft and Coast Defenses of the Atlantic Coast of French Morocco. He returned to Camp Stewart, Georgia, in June to take command of the 56th AAA Brigade.

Returning to Africa in 1944 he became the antiaircraft officer of the Seventh Army for the invasion of Southern France and in the advance through the Vosges Mountains, Alsace Plain, Germany, and Austria.

Returning to the States in 1945, General Kelly served with AFF and the Fifth Army until he went to Japan in 1947 to become Chief of the Special Services Section, Far East Command.

His retirement culminates an active career of 33 years in the Army.

War decorations: LM (OLC), and BSM.

32d AAA Brigade Highly Praised

MILDENHALL, England.—"The outstanding way in which antiaircraft artillerymen of the 32d AAA Brigade and its units immediately began to work smoothly and enthusiastically with the American Air Force and the British military units in England is commendable, and should serve as a source of great pride for each officer and enlisted man in the organization," said Lt. Gen. Charles L. Bolte, Army Deputy chief of staff for plans and combat operations, after his recent visit to the American AA units at their bases in the United Kingdom.

The general, who was in the United Kingdom to give a series of lectures sponsored by the Kermit Roosevelt Foundation, was accompanied to this base by Maj. Gen. J. P. McConnell, USAF, and was met at the headquarters of the 32d by the brigade commander, Col. Metti-

cus W. May Jr. and his staff, and American and British Air Force officers. After visiting the brigade units at their respective bases, the general said, "I have nothing but the highest praise for these men. The officers and enlisted men impressed me as knowing their jobs well. I haven't seen better looking soldiers anywhere." —*Army Times*.

Colonel Nelson Dingley, III, Retires

The President of the Board of Trustees of the New York Military Academy has announced the appointment of Colonel Nelson Dingley, III, General Staff Corps, U. S. Army, as Superintendent of the Academy. Colonel Dingley, who will retire from the Army on August 31, is presently serving as Senior Military Attache at the American Embassy in Stockholm, Sweden. He is an alumnus of the New York Military Academy ('10).

Colonel Dingley was commissioned in the CAC in 1916, serving both in the Mexican Border Campaign and as an artillery commander in France in World War I. He served initially with antiaircraft artillery in Hawaii. Later he served in Europe as assistant to General Lucius Clay in Military Government, as G1 in the Third Army and as Military Attache in Poland. Decorations: LM, BSM, CR.

General Wilson Retires As AER Director

At his own request, the resignation of Maj. Gen. Walter K. Wilson, USA, Ret., as Director of Army Emergency Relief has been accepted to become effective 1 July 1951. He will be succeeded by Maj. Gen. Edward F. Witsell, the Adjutant General of the Army, who retires on June 30, 1951.

General Wilson has served as Director of Army Emergency Relief continuously since January 11, 1944. In addition to being Director of AER, General Wilson was appointed by the late Honorable Henry L. Stimson as the Secretary of War's Liaison Officer with the American Red Cross. It was in the latter capacity that he was largely instrumental in effecting an efficient and cordial operating agreement between the Red Cross and AER with a view of coordinating the activities of both organizations. This agreement is still in operation and insures a minimum of duplication of the emergency financial assistance which both organizations are prepared to render

to Army personnel and their dependents.

In the last seven and one-half years in which General Wilson has been the Director, AER has disbursed over eight million dollars through loans and grants in providing financial assistance to over 100,000 members of the Army and their families.

General Wilson graduated from USMA in 1902 and was commissioned in the Artillery. He served in the Field Artillery, the Coast Artillery Corps, and on the General Staff until he was appointed a general officer in 1937 to take command at Corregidor. Upon his return to California in 1940 he activated and commanded the III Army Corps. Upon the outbreak of war in 1941 he organized and commanded the Southern California Sector of the Western Defense Command, and later the Northern California Sector, until he came to Washington in 1944 to take over the AER.

His retirement as AER Director culminates a distinguished career of 53 years continuous service in the Army.

CORRESPONDENCE

To the Editor:

The copy of the May-June issue of the JOURNAL arrived here today. I noted with some apprehension the article by Major Ride on reorganizing the 90mm Battalion for FA.

The proposition of converting a firing battery into a service battery and scattering personnel helter-skelter is contrary to building *esprit* and efficiency. The morale in his service (née D) battery would certainly not be high when it has been deprived of the primary mission of artillery—that of firing. This is not to mention the feeling that those "D" battery gun crews in the other batteries would have of being strangers in a strange outfit with their loyalties being in their own unit. Furthermore the advantages of having an extra firing battery are many. More targets can be engaged over a greater front, and a battery can be detached for various task force assignments and still not affect the battalion as a whole. The rate of fire of the 90mm gun more than makes up for the loss of the guns gained in splitting up "D" Battery's guns among the other batteries.

The 68th Gun Battalion has also been in Korea and has done some pretty fair work. The present AAA setup was modified only slightly in this unit by split-

ting the Headquarters Battery into two sections, in effect making it a Headquarters and Service Battery. This called for ammunition details from the firing batteries, but these men still felt that they were working for their own batteries. We also found that we could utilize the SRMU men to a better advantage as extra radio repairmen rather than letting them sit in a rear area doing little or nothing. Our main difficulty was in communications due to the fairly long distances between batteries. This was solved, however, in having all battery communications sections operate under the supervision of Battalion. Our communications were always excellent although the communication sections really worked overtime. The personnel who remained behind with the fire control equipment were the battery radar repairmen and some other range section personnel. That scheme worked and our equipment functioned perfectly when it was put back in use after being stored for over 3 months. By our system we maintained the integrity of our batteries and morale throughout. In addition there were no property complications nor personnel difficulties which could arise in the "Streamlined 90mm outfit." Morale is a tremendously important factor in a unit and one should remember when shifting T/O & E's that he is dealing with human beings who have pride in their own units, and that they are not mere numbers on a chart.

R. C. CHEAL

APO 301. Lt. Col., 68th AAA Gun Bn

To the Editor:

May I congratulate you and your staff for an exceptionally fine coverage of Korea. To me it is describing, at last, the true battle worth of the fine soldiers and weapons which we have in the anti-aircraft. I think we have indulged too often and too long in hairsplitting and elaborate discussions of technical minutiae. This tendency has produced some fine matériel—sometimes some utterly impractical junk, too.

However, you are giving the AAA what it deserves—coverage of fighting and all it implies: battlefield tactics, leadership, and general worth to the ground fighting team.

We are training intensively in just the sort of thing you are describing. I will have, for the JOURNAL, a complete write-up of the 48th training in the very

near future.

O. K. MARSHALL

Lt. Col., 48th AAA AW Bn (SP)
1st Infantry Division, APO 403

To the Editor:

The ANTI-AIRCRAFT JOURNAL has become a favorite of all officers and men within this battalion. We are pleased to submit to you this list of applications which will bring this battalion up to one hundred percent and hence place us on your honor roll.

The 35th AAA Gun Bn. (90mm), is a regular army unit, activated 1 April 1951. It is a negro unit, with the cadre furnished by the 450th AAA AW Bn. and the 719th AAA Gun Bn., both at Fort Lewis, Washington. Fillers have been received from Fort Bragg, N. C. and Fort Benning, Georgia.

Camp JOHN E. BURROWS
Stewart, Ga. Lt. Col., Arty, Comdg.

To the Editor:

Your May-June 1951 issue reached a new high for the JOURNAL. Korean actions are consistently interesting and instructive reading for all. Major Landsman's "AAOC To FDC" is due special mention. Major James W. Jordan, my S4, is so impressed with Capt. Wyckoff's article on battery supply that he has reproduced it by mimeograph and is using it in supply orientation of recently inducted National Guard battalions.

Within the very near future you may expect the 182nd, 420th and 728th Battalions to join the group and the 245th, 709th, 716th and 726th Battalions, on your Honor Roll. We are also providing for more copies in the EM day rooms and the other reading rooms.

Camp JOHN D. SIDES,
Stewart, Ga. Col., 226th AAA Group

We hope to give you a lot more from Major Landsman, our other able reporters in Korea and Capt. Wyckoff. They can well appreciate this comment from Col. Sides. He is truly a "pillar" of the JOURNAL.—ED.

PSYCHIATRY

The article, "Psychiatry In The Korean War," by Colonel Amos R. Koontz, reprinted in the March-April ANTI-AIRCRAFT JOURNAL from the Military Surgeon, has elicited comment of interest, pro and con.

To Colonel Koontz:

I see that you have been up to your old tricks, picking on the psychiatrist, and I read with interest your article, "Psychiatry in the Korean War." You know how strongly I feel on this subject and how I concur in your remarks, and particularly in your last paragraph. Psychiatry is unquestionably a specialty of medicine but the psychic and the somatic of the human being are so completely interwoven that you cannot tear the parts away from each other without losing something of each. We know that the old-time country physician was a psychiatrist in his way, perhaps in the over-all, equalled by few modern psychiatrists. He knew all of the tricks which brought the psychic into line so that the somatic might get well.

RICHARD H. EANES
Colonel, USA, Retired
Chief Medical Officer SSS

To the Editor:

I was shocked by Colonel Koontz' article in the March-April issue of the AA JOURNAL. As a psychologist and a onetime combat soldier, I find this bit of theory fraught with errors, some quite grievous. Colonel Koontz suggests that there are three reasons for the 100% increase in psychiatric war casualties in World War II over World War I: 1) "the blight to our patriotism," resulting from an "insidious, creeping, socialistic philosophy," which presumably makes the American soldier soft and ready to succumb to war's rigors; 2) a widespread public knowledge of the facts of certain psychiatric conditions leading to many prearranged attempts to fake one of these conditions; 3) a callowness and lack of experience on the part of psychiatrists which induces a "credulous attitude" on their part making for the ultimate success of the feigned ailment.

One might conclude from the colonel's speculations that premorbid experience, family history, combat conditions and other factors play no part in the combat neurosis. One might also conclude that there were no physiological symptoms of this ailment, and that its onset guarantees the soldier a long rest somewhere in the rear areas. None of these conclusions would be true.

The facts of the matter are that combat fatigue (or neurosis) has certain physical symptoms such as trembling, incessant swallowing, sweating, paling

and flushing, etc., which cannot be feigned; that between 37 and 52% of the cases in the last war had a positive family history; and that the condition has an excellent prognosis and short duration if caught in time so that most of the sufferers returned to duty in a short time. Furthermore, these soldiers underwent prolonged fear, exhaustion, and deprivation, and often experiences so horrifying that the consequent breakdown would be no surprise even to a layman. So I am astonished to find a psychiatrist (although perhaps Col. Koontz is not a psychiatrist) who feels that these pitiful cases are malingerers simply because he cannot see any flesh torn by hot metal.

As far as the colonel's second supposition goes, it is not necessary to argue the relative sophistication of the public. Most psychiatrists believe that true, conscious malingering is rare, and not hard to detect in any event. Thus even if a soldier was possessed of some psychiatric knowledge, and was impelled in some way to fake an ailment (knowing the American soldier, I would be extremely cautious about such an accusation—it's most likely not accurate), he would still be detected with ease.

It has become fashionable nowadays to take advantage of the current international tension, and blame any disliked circumstances, whether imaginary or otherwise, on "foreign ideas" or "socialism." The dynamics of the infiltration are seldom specified; Col. Koontz has not offered any explanation of how this "insidious" drug changes the American citizen from a patriotic, self-reliant, freedom-loving individual, into the milksop who cannot stand the first tribulation. Nor has the colonel delineated the contents of this "socialistic philosophy." Perhaps the colonel is implying that the members of one political party make better soldiers than the men of another party. Certainly if "socialism" makes for weaklings, than we have nothing to fear from Russia, her satellites, or Red China. With their philosophy, they should be breaking down right and left.

But as far as I know, the American citizen still works eight hours a day to pay for bread, butter, and rent. And he pays taxes; ask the average man if the Government is supporting him, then duck quickly.

Col. Koontz has somehow overlooked the basic reason for the increased inci-

dence of combat neuroses in the last war, the explanation generally accepted by psychologically trained personnel. In the first World War, diagnostic methods were too undeveloped to recognize many psychiatric cases for what they were. The more precise techniques of the last decade simply discovered more ailments in more soldiers, but not because there were more ill soldiers in World War II than in I. The tremendous improvement in psychiatry in those 25 years enabled clinicians of the last war to screen cases that would have passed unnoticed in 1917. *There is no evidence that any of that 100% increase was due to any other factor save this improvement in diagnosis.* So much for the colonel's hypotheses.

The layman believes that anything that is published in a scientific journal must be unvarnished truth. Those of us who read these periodicals regularly know that a surprising amount of pure hogwash gets printed in them. With this consideration in mind, I ask the combat veteran, the soldier who has had combat fatigue, or has seen the unmerciful wreck that war can make of a man's mind, not to think that Col. Koontz speaks officially for psychiatry or psychology. I assure you that he does not. To those men who have not yet, but who some day may, face combat—psychiatry is with you, not against you.

EUGENE E. LEVITT
1st Lt., Arty, NYNG

[Colonel Koontz is a surgeon, not a psychiatrist. However, as a medical student at Johns Hopkins he studied psychiatry for two years under Dr. Adolph Meyer, a foremost authority. In World War II Colonel Koontz served 1940-42 as the Medical Director of Selective Service in Maryland with experience in the psychiatric handling of cases incident to induction. Later he served 43 months in the Pacific where he commanded hospitals (one the 18th General—a Johns Hopkins unit) and served finally as Surgeon for the U. S. Army Forces in the South Pacific. There he had responsibility for the handling of psychiatric battle casualties.

Our files include expressions of concurrence from reputable surgeons and combat commanders. Colonel Eanes, Medical Director of the Selective Service System, quoted above, has directed extensive research in this field. He also

participated in the Study Of Neuropsychiatric Rejectees, reported in the *Journal of the American Medical Association*, February 17, 1951.

Colonel Koontz' ideas on psychiatry, however controversial, appear to rate attention. He has more to say here.—Ed.]

To the Editor:

Lieutenant Levitt states that "combat fatigue (or neurosis) has certain physical symptoms such as trembling, incessant swallowing, sweating, paling and flushing, etc., which cannot be feigned." These are the symptoms of fear. One cannot blame a soldier in combat for being scared, but most of them soon get over it. The lieutenant states that the condition has "an excellent prognosis and short duration if caught in time." With that I agree, and the time to catch it is as soon as it occurs and not allow the man to be evacuated as a psychiatric case. Some men are cowards and some are not. It is said that every man has his breaking point. With some the threshold is low; with others it is very high. This has always been recognized in war and has generally been dealt with by the line commanders and not by psychiatrists. I believe that a study of the record will show that line commanders have handled it on the whole better than the psychiatrists did in World War II.

Lieutenant Levitt states that "most psychiatrists believe that true, conscious malingering is rare, and not hard to detect in any event." This bears out what I said about psychiatrists being credulous people. No one who has had much experience in military medicine agrees with them. If it is true that malingering is *not* hard to detect, then that furnishes another bit of evidence for the credulity of psychiatrists, because many an inductee in World War II was coached by another who had been rejected for "psychiatric" reasons and in turn fooled the psychiatrist into rejecting him also.

The lieutenant takes me to task for blaming some of the softness encountered in World War II, which was not encountered in World War I, on socialism. He states that I implied that the members of one political party make better soldiers than men of another party. If he is talking about old-time Democrats and Republicans, let me assure him that I intend no such implication. Socialism, however, is not a political party. It is a system of political philosophy which has

to a large extent undermined the good sense of both our major political parties, and I maintain that the system causes a deterioration in the very moral fiber of our citizens. It tends to do away with initiative, thrift, self-reliance, and self-respect. It breeds a concept that the citizen owes nothing to his country, but that the country owes everything to the citizen. How can a man be a good soldier under such a mistaken conception?

The lieutenant goes on to say that if socialism makes for weaklings, then we have nothing to fear from Russia. His statement is wrong for Russia is neither a socialistic country with a small "s," nor a communistic country with a small "c," but is a Communist country with a capital "C." The word Communist is synonymous with totalitarianism, just as the words Nazi and Fascist are.

The lieutenant also states that the American citizen still works for a living and pays taxes. It is true that most American citizens work for a living and pay taxes, and it is also true that a large part of their taxes go for the support of people who will not work even when work is available for them. They prefer to live off the government—off of your taxes and mine. That is another evil of socialism and one of the many ways in which it undermines moral fiber.

Lieutenant Levitt states that the reason that there were proportionately more psychiatric cases in World War II than in World War I was that during World War I "diagnostic methods were too undeveloped to recognize many psychiatric cases for what they were." It is fortunate for the soldiers of World War I that the diagnostic methods were rather primitive. They got along very well without the stigma of a "psychiatric" label. The lieutenant's statement bears out what I have said time and time again, namely that there were *actually* not a greater proportion of psychiatric cases in World War II than in World War I, but there were a great many more cases which were *diagnosed* psychiatric cases. In World War II the induction examination was supposed to eliminate psychiatric cases in the armed forces. In this process of elimination the psychiatrists turned down many normal people who were engaged in useful civilian occupations and who have been ever since. Overseas I saw many cases sent home by psychiatrists simply because they said they had "done their share." Admittedly

there were not enough good psychiatrists to go around. We had a lot of "60-day wonders." A great many of our top-flight psychiatrists have agreed with what I have said about the psychiatric bungling of World War II. And for the benefit of Psychologist Levitt I wish to state that the Professor of Psychology in one of our leading universities, who has had a wide range of experience in abnormal psychology, has seen all of the papers I have written on military psychiatry and he agrees with all of them.

Everyone who has served with line troops knows that the best deterrent to "combat fatigue" and other so-called psychiatric conditions (I am not speaking of real psychoses) is good leadership on the part of the line commander. The company or battery commander who enforces discipline (the disciplined soldier is the happiest soldier) and who inspires his soldiers by topnotch leadership, has very few men transferred out with a psychiatric label. Of course, these men are scared at times, but the inspired commander does all he can to alleviate that fear and is generally successful. On the other hand, poor leadership is disastrous in combat. I know of one regiment which during an island campaign in the Pacific evacuated 360 men in one day as psychiatric cases. This debacle was caused, in the first place, by poor leadership on the part of the line commanders, and, in the second place, by poor judgement on the part of inexperienced medical officers. These men should have been sent back to duty as soon as possible—at least after a sedative and a little rest. Instead, they got all the way back to a general hospital where a psychiatrist, instead of sending them back to duty, evacuated them to the Zone of the Interior with psychiatric labels. They knew that there was nothing wrong with them but that they were simply getting out of the war.

Psychiatry has a definite place in medicine, but it is a very immature science. Our best psychiatrists realize this and have openly said that psychiatry has to clean house from the inside. A professor of psychiatry in one of our greatest medical schools was recently quoted as saying just that publicly. It can be, and it has been, demonstrated that psychiatry failed us in World War II. It is up to everyone concerned to realize the failures and to try to avoid them in the future.

AMOS R. KOONTZ
Baltimore, Md. Col., AUS, Ret.

ARTILLERY ORDERS

DA Special Orders Covering May 1, 1951 through June 30, 1951.
Promotions and Demotions not included.

COLONELS

Allen, William H., Jr., to OC of S, Wash, DC.
Ammerman, James F., to OFCS 8485th AAU, Wash, DC.
Bailey, Donald J., to Hq Cen AAA Comd, Kansas City, Mo.
Beach, Dwight E., to Army War College, Carlisle Bks, Pa.
Blemenfield, Charles H., to OC of S, Wash, DC.
Boyd, Harry R., to OC of S, Wash, DC.
Brucker, Wallace H., to OC of S, Wash, DC.
Brusher, Harold A., to Hq Sp Wpns Comd, 8452d AAU, Sandia Base, N. Mex.
Camp, Howard E., to AGO, Wash, DC.
Cardell, Robert L., to OC of S, Wash, DC.
Cather, Leo, to Office Chief AFF, Ft Monroe, Va.
Cole, Hubert M., to Third AV Corps, Ft Bragg, NC.
Crawford, Stuart F., to OC of S, Wash, DC.
Davis, Lee J., to Air War College, Maxwell AFB, Ala.
Denson, Pierre B., to Hq Western AAA Comd, Hamilton AFB, Calif.
Duehring, George C., to OC of S, Wash, DC.
Ellis, Walter F., to Hq AAA Comd, Ent AFB, Colorado Springs, Colo.
Ferris, John W., to RDB 8492d AAU, Wash, DC.
Folk, Frank T., to Hq Fourth A, Ft Sam Houston, Tex.
Frederick, William R., Jr., to OC of S, Wash, DC.
Harriott, Donald B., to OC of S, Wash, DC.
Hartman, Norman E., to AGO Pers Bur, Wash, DC.
Hillberg, Lauri J., to Army War College, Carlisle Bks, Pa.
Irvine, Michael M., to Office Chief AFF, Ft Monroe, Va.
Lazar, Aaron M., to 250th AAA Group, Ft Lewis, Wash.
Lewis, David C., to 11th Abn Div, Ft Campbell, Ky.
McFeeley, Henry G., to OC of S, Wash, DC.
Means, Dale E., to OC of S, Wash, DC.
Paige, Byron L., to Army War College, Carlisle Bks, Pa.
Ratcliffe, Lamar C., to Army War College, Carlisle Bks, Pa.
Roy, Paul A., to OC of S, Wash, DC.
Scarborough, Lawrence M., to Office Chief AFF, Ft Monroe, Va.
Scheer, Charles H., to 301st Log Comd, Cp Rucker, Ala.
Shaver, Maurice P., to OC of S, Wash, DC.
Shea, Patrick E., to ROTC Instr Gp, Univ of Santa Clara, Calif.
Schmick, Peter, to OC of S, Wash, DC.
Smith, Coburn C., to OC of S, Wash, DC.
Speiser, Robin G., to Army War College, Carlisle Bks, Pa.
Sundt, Harold S., to OC of S, Wash, DC.
Trussell, John B. B., to OCSA, Wash, DC.
Wedemeyer, William A., to ROTC Instr Gp, Yale Univ, New Haven, Conn.

LIEUTENANT COLONELS

Anderson, Charles H., to Office Chief AFF, Ft Monroe, Va.
Barry, Robert B., Jr., to 88th Abn AA Bn, Ft Campbell, Ky.
Beere, Donald C., to CGSC, Ft Leavenworth, Kans.
Beiser, John J., to Univ of Pa, Phila, Pa.
Bennett, Donald V., to Office Chief AFF, Ft Monroe, Va.

Billups, James S., Jr., to Office Secy of Def, Wash, DC.
Brown, Gerhard E., to 80th AAA Group, Ft Totten, NY.
Burrows, John E., to CGSC, Ft Leavenworth, Kans.
Caulder, Bruce B., to CGSC, Ft Leavenworth, Kans.
Cone, Sidney L., to 22d AAA Group, Ft Custer, Mich.
Creel, George R., Jr., to Univ of Wisc, Madison, Wisc.
Deason, Robert H., to OC of S, Wash, DC.
Floryan, Thaddeus P., to OC of S, Wash, DC.
George, Claude D., Jr., to OC of S, Wash, DC.
Goodnow, James L., to Hq Fourth Army, Ft Sam Houston, Tex.
Green, Gilford D., to CGSC, Ft Leavenworth, Kans.
Greening, Orlando L., to CGSC, Ft Leavenworth, Kans.
Guy, John J., to Hq Eastern AAA Comd, Stewart AFB, NY.
Hanson, Charles C., to Office Chief AFF, Ft Monroe, Va.
Hardy, George R., to 2171st ASU, Army Cln Cen, Md.
Hasselback, Frederick W., Jr., to OC of S, Wash, DC.
Holterman, Gordon H., to EUCOM, Bremerhaven, Germany.
Isreal, Lee E., to 3444th ASU, Cp Stewart, Ga.
Jameson, Roy A., Jr., to Mich NG Instr Gp, Detroit, Mich.
Johnson, Dan W., to CGSC, Ft Leavenworth, Kans.
Keating, Paul G., to Hq V Corps, Ft Bragg, NC.
Kinard, William H., Jr., to OC of S, Wash, DC.
Larson, Werner L., to FECOM, Yokohama, Japan.
McCann, James H., Jr., to Hq Cen AAA Comd, Kansas City, Mo.
McLean, John R., to Office Chief AFF, Ft Monroe, Va.
McMillan, Donald L., to CGSC, Ft Leavenworth, Kans.
Maples, Herron N., to OC of S, Wash, DC.
Marshall, John F., to CGSC, Ft Leavenworth, Kans.
Miller, Samuel T., to CGSC, Ft Leavenworth, Kans.
Murray, Douglas B., to 4052d ASU AAA and GM Cen, Ft Bliss, Tex.
O'Connor, George G., to OC of S, Wash, DC.
Olhausen, James N., to CGSC, Ft Leavenworth, Kans.
Parker, John C., to CGSC, Ft Leavenworth, Kans.
Payne, Harry M., to A Sec Tac Tgt Br, Dir of Intel USAF, Wash, DC.
Pennell, Robert, to 2d Armd Div, Ft Hood, Tex.
Phillips, Paul D., to 1st Armd Div, Ft Hood, Tex.
Pichard, Andrew D., to OC of S, Wash, DC.
Quirey, William O., to CGSC, Ft Leavenworth, Kans.
Robinette, William R., to 3444th ASU, Cp Stewart, Ga.
Ross, James O., to NG Instr Gp, Austin, Tex.
Samson, Charles P., to CGSC, Ft Leavenworth, Kans.
Sandell, Bertil B., to CGSC, Ft Leavenworth, Kans.
Seaman, Jonathan O., to EUCOM, Bremerhaven, Germany.

Smith, Phillip R., to CGSC, Ft Leavenworth, Kans.
Smith, Woodrow M., to AGO, Wash, DC.
Sutherland, John F., to EUCOM, Bremerhaven, Germany.
Taber, Robert C., to Stu Det A Lang Sch, Monterey, Calif.
Thompson, Edgar H., Jr., to A Sec Tac Tgt Br Dir of Intel USAF, Wash, DC.
Tyson, Robert N., to EUCOM, Bremerhaven, Germany.
Urban, Peter L., to CGSC, Ft Leavenworth, Kans.
Walker, Robert M., to CGSC, Ft Leavenworth, Kans.
Weisberg, Benjamin, to OC of S, Wash, DC.
Weld, Seth L., Jr., to Army War College, Carlisle Bks, Pa.
Williams, Albert C., to EUCOM, Bremerhaven, Germany.
Williams, Urquhart P., to Office Chief AFF, Ft Monroe, Va.
Wollaston, Pencock H., to Quarry Heights, CZ.
Wood, Milford W., to CGSC, Ft Leavenworth, Kans.

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Bennett, George E., to N Mex NG Instr Gp, Carlsbad, N Mex.
Beyer, Robert W., to Office Chief AFF, Ft Monroe, Va.
Bryan, Thomas L., to OC of S, Wash, DC.
Carpenter, Roy B., to ORC Instr Gp, Memphis, Tenn.
Chapman, Daniel T., to CGSC, Ft Leavenworth, Kans.
Davidoff, James E., to OC of S, Wash, DC.
Downey, John J., Jr., to CGSC, Ft Leavenworth, Kans.
Downing, Edward P., to US Naval War College, Newport, RI.
Duda, Frank, to Hq Second A, Ft Meade, Md.
Evans, Jack C., Jr., to CGSC, Ft Leavenworth, Kans.
Farr, Richard, to CGSC, Ft Leavenworth, Kans.
Hagemeier, Paul E., to 2d AAA AW Bn, Ft Bliss, Tex.
Holmes, William E., to Hq Eastern AAA Comd, Willow Run Airport, Mich.
Jefferies, Charles C., to Hq A AAA Comd, Ent AFB, Colorado Springs, Colo.
Jones, Willard L., to 3444th ASU, Cp Stewart, Ga.
Kamp, Anthony M., Jr., to OC of S, Wash, DC.
Lambert, William H., to FECOM, Yokohama, Japan.
Lorck, Horace C., to Cen A AAA Comd, Kansas City, Mo.
Maline, Paul J., to CGSC, Ft Leavenworth, Kans.
Mayers, Thomas H., to 3444th ASU, Cp Stewart, Ga.
Murphy, James O., to CGSC, Ft Leavenworth, Kans.
Peterson, Ralph M., to 7686th Hq Gp ASFA, Salzburg, Austria.
Pigue, Paul E., to EUCOM, Bremerhaven, Germany.
Pryor, Frank D., Jr., to Hq Fourth A, Ft Sam Houston, Tex.
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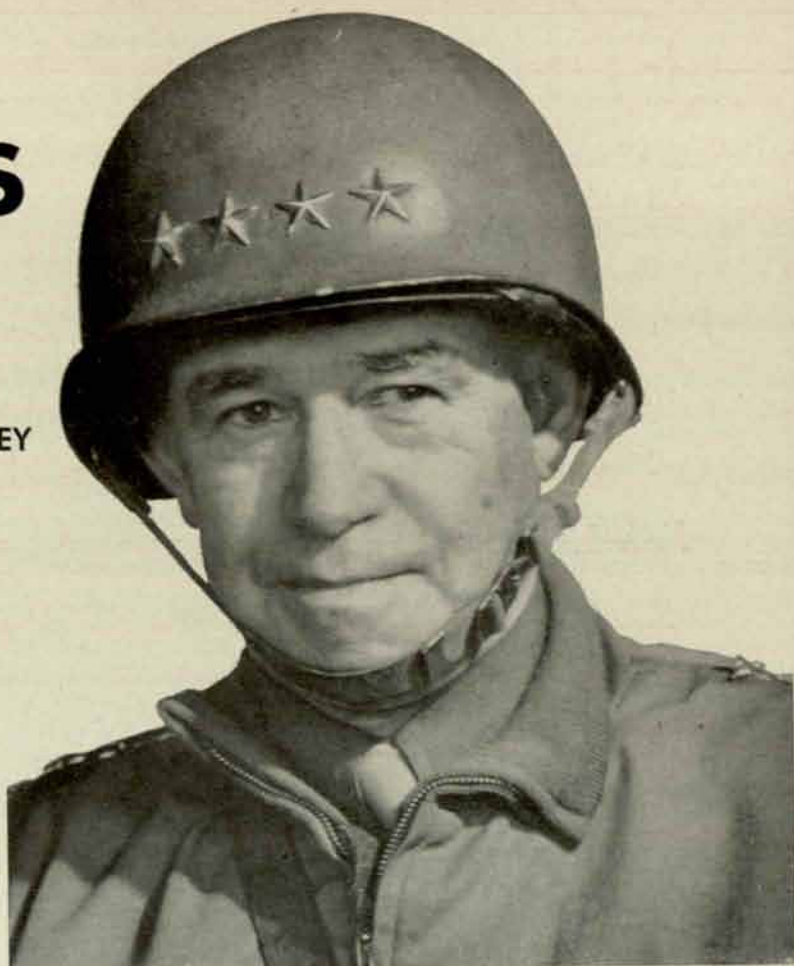
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